Type 2 surge arrester - VAL-MS 320/3+0 - 2920230

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

Your advantages

- With or without floating remote indication contact
- Type 2 consistent plug-in surge arresters
- Optical, mechanical status indication for the individual arresters
- Mechanical coding of all slots
- Disconnect device on each individual plug
- Multi-channel type 2 arresters

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 157070
GTIN	4046356157070

Technical data

Dimensions

Height	89.8 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 %

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Ambient conditions

Shock (operation)	25g (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	TN-C
Mode of protection	L-PEN
Mounting type	DIN rail: 35 mm
Color	jet black RAL 9005
Housing material	PA 6.6
	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	optical

Protective circuit

Nominal voltage U_N	240/415 V AC (TN-C)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	335 V AC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 1.35 mA
Standby power consumption P_C	≤ 450 mVA
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 1.5 kV
Residual voltage U_{res}	≤ 1.5 kV (at I_n)
	≤ 1.3 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1.1 kV (at 3 kA)
TOV behavior at U_T	415 V AC (5 s / withstand mode)
	440 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	125 A (gG)

Connection data

Connection method	Screw connection

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Connection data

Screw thread	M5
Tightening torque	3 Nm (1,5 mm² ... 16 mm²)
	4.5 Nm (25 mm² ... 35 mm²)
Stripping length	16 mm
Conductor cross section flexible	1.5 mm² ... 25 mm²
Conductor cross section solid	1.5 mm² ... 35 mm²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm² ... 16 mm²

UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	640 V AC
Maximum continuous operating voltage MCOV (L-G)	320 V AC
Nom. voltage	240 V AC
Mode of protection	L-L
	L-G
Power distribution system	3D
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	2900 V
Measured limiting voltage MLV (L-G)	2720 V
Nominal discharge current I_n (L-L)	20 kA
Nominal discharge current I_n (L-G)	20 kA

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: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

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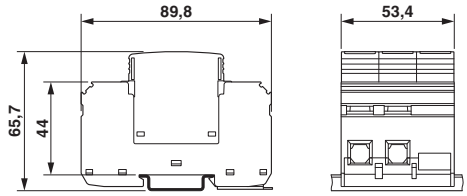
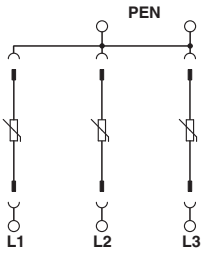
Dimensional drawing



Product drawing

Circuit diagram



Approvals

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UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / CCA / IECEE CB Scheme / EAC / EAC / CSA / cULus Recognized

Ex Approvals

Approval details

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

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Approvals

KEMA-KEUR	http://www.dekra-certification.com	2170208.01
ÖVE	https://www.ove.at/en/certification-pz/certification-register/	18583-001-13
cUL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
CCA		NTR-AT 1947-A
IECEE CB Scheme	http://www.iecee.org/	AT 2905/M1
EAC		EAC-Zulassung
EAC		RU C-DE.A*30.B01561
CSA	http://www.csagroup.org/services-industries/product-listing/	13631
cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	

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