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Especialistas en Automatización

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Type 2 surge arrester - VAL-MS 385/80/3+0-FM - 2921080

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Type 2 surge arrester for 4-wire power supply systems (L1, L2, L3, PEN), with connector latching and remote indication contact.

Why buy this product

- Plugs can be checked with CHECKMASTER
- With or without floating remote indication contact
- Secure hold of plugs in the event of high lightning current loads and strong vibrations thanks to new latching
- Optical, mechanical status indication for the individual arresters
- Type 2 consistent plug-in surge arresters
- Mechanical coding of all slots
- Multi-channel type 2 arresters
- Disconnect device on each individual plug



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 280099

Technical data

Dimensions

Height	99 mm
Width	53.4 mm
Depth	77.5 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

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Ambient conditions

Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
Number of ports	One
SPD design	Voltage-limiting type
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
Surge protection fault message	Optical, remote indicator contact

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	385 V AC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 1800 μ A
Standby power consumption P_C	≤ 690 mVA
Nominal discharge current I_n (8/20) μ s	40 kA
Maximum discharge current I_{max} (8/20) μ s	80 kA
Impulse discharge current (10/350)# μ s, charge	1.25 As
Impulse discharge current (10/350)# μ s, specific energy	1.56 kJ/ Ω
Impulse discharge current (10/350)# μ s, peak value I_{imp}	2.5 kA
Total discharge current I_{Total} (8/20) μ s	200 kA
Total discharge current I_{Total} (10/350) μ s	7.5 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 2 kV
Residual voltage U_{res}	≤ 2 kV (at I_n)

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Protective circuit

	≤ 1.3 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1.15 kV (at 3 kA)
TOV behavior at U_T	480 V AC (5 s / withstand mode)
	457 V AC (120 min / withstand mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	250 A (gG)
Max. backup fuse with V-type through wiring	80 A (gG - 16 mm ²)

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1.5 A
	1 A
Connection method	Screw connection
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 solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Connection data

Connection method	Screw connection
Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section solid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	385 V AC
Maximum continuous operating voltage MCOV (L-G)	385 V AC
Nom. voltage	240 V AC
Mode of protection	L-L
	L-G
Power distribution system	3D
Nominal frequency	50/60 Hz

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UL specifications

Measured limiting voltage MLV (L-L)	3860 V
Measured limiting voltage MLV (L-G)	2710 V
Nominal discharge current I _n (L-L)	20 kA
Nominal discharge current I _n (L-G)	20 kA

UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A
Tightening torque	4 lb _r -in.
Conductor cross section AWG	30 ... 14

UL connection data

Conductor cross section AWG	10 ... 2
Tightening torque	30 lb _r -in.

Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805
eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

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Approvals

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KEMA-KEUR / CCA / IEC EE CB Scheme / GL / UL Recognized / cUL Recognized / EAC / cULus Recognized


Ex Approvals

Approvals submitted


Approval details


KEMA-KEUR 

CCA

IECEE CB Scheme 

GL

UL Recognized 

cUL Recognized 

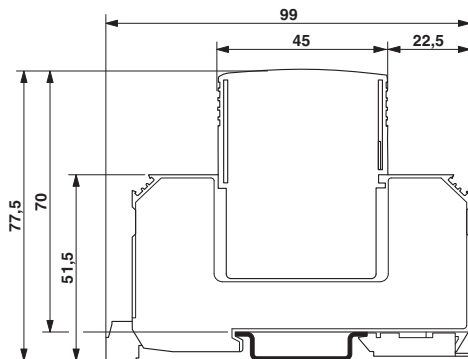
EAC

cULus Recognized 

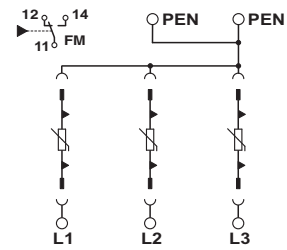
Drawings

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Dimensional drawing



Circuit diagram



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