

Type 2 surge arrester - VAL-MS 230 - 2839127

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Surge voltage arrester consisting of base element and ground connector with high-capacity varistor, for mounting on NS 35/7.5, nominal voltage: 230 V AC, 1-channel.

Product Features

- Single-channel, DIN-rail mountable protective devices
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Disconnect device on each individual plug
- Base element with/without floating remote indication contact
- Consists of base element and plug



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	132.0 g
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	90 mm
Width	17.6 mm
Depth	58 mm
Horizontal pitch	1 Div.

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
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Ambient conditions

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 sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	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
	TT
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	L-PEN
	L-N
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	1
Surge protection fault message	optical

Protective circuit

Nominal voltage U_N	240/415 V AC (TN)
	240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	275 V AC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 0.45 mA
Standby power consumption P_C	≤ 120 mVA
Nominal discharge current I_n (8/20) μ s	20 kA

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Protective circuit

Maximum discharge current I_{max} (8/20) μ s	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 1.35 kV
Residual voltage U_{res}	≤ 1.35 kV (at I_n)
	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
TOV behavior at U_T	335 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	125 A (gG)
Max. backup fuse with V-type through wiring	80 A (gG)

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-N)	275 V AC
Nom. voltage	230 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1900 V
Nominal discharge current I_n (L-N)	20 kA

UL connection data

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

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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	27130805
eCl@ss 9.0	27130805

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


Ex Approvals


Approvals submitted

Approval details

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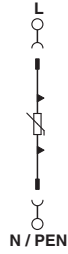
EAC

cULus Recognized 

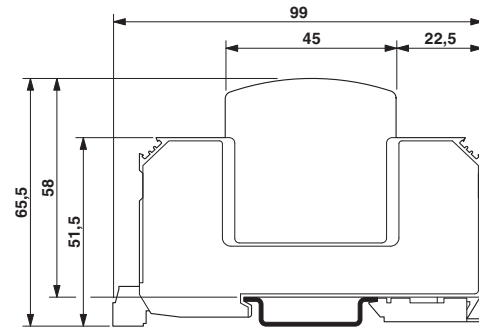
Drawings

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Circuit diagram



Dimensional drawing



The illustration shows the dimensional drawing for a version with remote indicator contact