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Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

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Surge arrester consisting of 2-channel base element with remote indication contact and protective plugs connected in series with a varistor and a gas-filled spark gap.

Product Features

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

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	250.0 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	97 mm
Width	35.6 mm
Depth	58 mm
Horizontal pitch	2 Div.

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C

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Technical data

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g
Vibration (operation)	5g

General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
IEC power supply system	IT (please see note below)
Number of ports	One
SPD design	Combination type
Mode of protection	L-PEN
	L-PE
Mounting type	DIN rail: 35 mm
Color	black
Housing material	PA 6.6
	PBT
Pollution degree	2
Distance between live and grounded parts	8 mm
Inflammability class according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

Additional descriptions

Note	Usable in all low-voltage systems between L-N or L-PEN. Only usable in IT Systems between L-PE, if the exposed-conductive-parts (bodies) of the equipment of the low-voltage installation is connected to the earthing arrangement of the transformer substation. (interconnected earthing arrangement of the HV-transformer substation with the bodies of the LV-installation. $R_E = R_A$ accordance to IEC 60364-4-442 / VDE 0100-442 Fig. 44D / Example a)

Protective circuit

Nominal voltage U_N	400/690 V AC (TN-C)
	690 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)

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Technical data

Protective circuit

Maximum continuous operating voltage U_C (L-PE)	800 V AC
Maximum continuous operating voltage U_C (L-PEN)	800 V AC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 3 µA
Standby power consumption P_C	≤ 3 mVA
Nominal discharge current I_n (8/20) µs (L-PE)	15 kA
Nominal discharge current I_n (8/20) µs (L-PEN)	15 kA
Maximum discharge current I_{max} (8/20) µs (L-PE)	30 kA
Maximum discharge current I_{max} (8/20) µs (L-PEN)	30 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p (L-PE)	≤ 5 kV
Voltage protection level U_p (L-PEN)	≤ 5 kV
Residual voltage U_{res} (L-PE)	≤ 3 kV (at I_n)
	≤ 2.6 kV (at 10 kA)
	≤ 2.4 kV (at 5 kA)
	≤ 2.3 kV (at 3 kA)
Residual voltage U_{res} (L-PEN)	≤ 3 kV (at I_n)
	≤ 2.6 kV (at 10 kA)
	≤ 2.4 kV (at 5 kA)
	≤ 2.3 kV (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) µs (L-PE)	≤ 5 kV
Front of wave sparkover voltage at 6 kV (1.2/50) µs (L-PEN)	≤ 5 kV
TOV behavior at U_T (L-PEN)	1550 V AC (5 s / withstand mode)
Response time t_A (L-PE)	≤ 100 ns
Response time t_A (L-PEN)	≤ 100 ns
Max. backup fuse with branch wiring	100 A AC (gG)
Max. backup fuse with V-type through wiring	80 A AC (gG)

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 AC
	1 A DC
Connection method	Screw connection
Screw thread	M2

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Technical data

Indicator/remote signaling

Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm²
Conductor cross section stranded max.	1.5 mm²
Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	1.5 mm²
AWG conductor cross section	28 ... 16

Connection data

Connection method	Screw connection
Conductor cross section stranded min.	1.5 mm²
Conductor cross section stranded max.	25 mm²
Conductor cross section solid min.	1.5 mm²
Conductor cross section solid max.	35 mm²
AWG conductor cross section	15 ... 2
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

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

ETIM

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

UNSPSC

UNSPSC 6.01	30212010

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Classifications

UNSPSC

UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

KEMA-KEUR / ÖVE / GL / CCA / IECEE CB Scheme / KEMA-KEUR / ÖVE

Ex Approvals

Approvals submitted

Approval details

KEMA-KEUR

ÖVE

GL

CCA

IECEE CB Scheme

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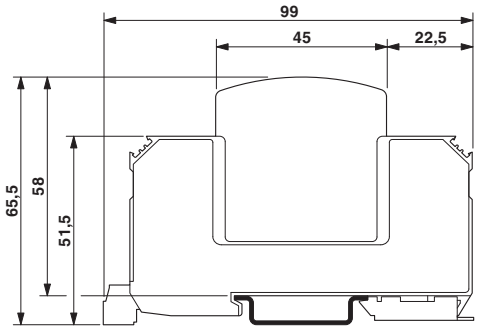
Approvals

KEMA-KEUR

ÖVE

Drawings

Dimensioned drawing



Circuit diagram