

Type 2 surge protection device - VAL-MS 60 - 2868020

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Surge arresters consisting of base element and protective connector with high-capacity varistor, for mounting on NS 35/7.5, 1-channel

The figure shows the VAL-MS 230 version

Product Features

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



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	120.0 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

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

Ambient conditions

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Technical data

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 %
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
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	L-PEN
Mounting type	DIN rail: 35 mm
Color	black
Housing material	PA 6.6
	PBT / PA
Pollution degree	2
Inflammability class 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	60 V AC (TN)
	60 V DC
	-48 V DC (RRH)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	75 V AC
	100 V DC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 0.45 mA
Standby power consumption P_C	≤ 35 mVA
Nominal discharge current I_n (8/20) μ s	15 kA

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Protective circuit

Maximum discharge current I_{\max} (8/20) μs	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 0.55 kV
Residual voltage U_{res}	≤ 0.55 kV (at I_n)
	≤ 0.425 kV (at 10 kA)
	≤ 0.325 kV (at 5 kA)
	≤ 0.275 kV (at 3 kA)
TOV behavior at U_T	100 V AC (5 s / withstand mode)
Response time t_A	≤ 25 ns
Max. required backup fuse with branch wiring	125 A AC (gG)
	50 A DC (gG)
Max. required backup fuse with V-type through wiring	80 A AC (gG)

Connection data

Connection method	Screw connection
Conductor cross section stranded min.	1.5 mm ²
Conductor cross section stranded max.	25 mm ²
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	35 mm ²
AWG conductor cross section	15 ... 2
	10 ... 2 (UL)
Screw thread	M5
Tightening torque	4.5 Nm
	30 lb _F -in. (UL)
Stripping length	16 mm

NEMA/UL protective circuit

UL class	Type 4 SPD for Type 2 applications
Maximum continuous operating voltage MCOV (L-N)	75 V AC
Maximum continuous operating voltage MCOV (L+) - (L-)	100 V DC
Maximum continuous operating voltage MCOV (L+/L-) - G	100 V DC
Nominal voltage U_N	60 V AC
Nominal voltage	60 V DC
Mode of protection	L-N
	(L+) - (L-)
	(L+/L-) - G
Power distribution system	1
Nominal frequency	50/60 Hz

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NEMA/UL protective circuit

Voltage protection rating VPR (L-N)	0.5 kV
Voltage protection rating VPR (L+) - (L-)	0.33 kV
Voltage protection rating VPR (L+/L-) -G	0.33 kV
Nominal discharge current I_n (L-N)	10 kA
Nominal discharge current I_n (L+) - (L-)	10 kA
Nominal discharge current I_n (L+/L-) - G	10 kA

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

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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UL Recognized / KEMA-KEUR / cUL Recognized / GOST / KEMA-KEUR / CSA / ÖVE / CCA / IECCE CB Scheme / cULus Recognized

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Approvals

Ex Approvals


Approvals submitted


Approval details

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KEMA-KEUR 

cUL Recognized 


GOST 

KEMA-KEUR 

CSA

ÖVE 

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IECEE CB Scheme 

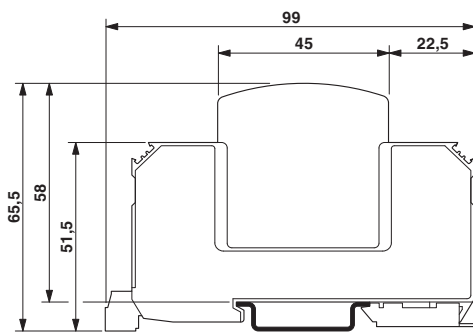
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Approvals

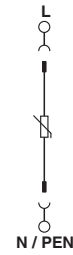


Drawings

Dimensioned drawing



Circuit diagram



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