

Type 2 surge protection device - 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 GRM
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	89.8 mm
Width	17.7 mm
Depth	65.5 mm
Pitch unit	1 Div.

Ambient conditions

Degree of protection	IP20
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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 %

General

Housing material	PBT / PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	DIN EN 60664-1
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	Optical
Direction of action	1L-N/PE

Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC
Maximum continuous operating voltage U_C	275 V AC
Maximum continuous operating voltage U_C (L-N)	275 V AC
Maximum continuous operating voltage U_C (L-PEN)	275 V AC
U_T (TOV-proof)	335 V AC (5 s)
Nominal frequency f_N	50 Hz (60 Hz)
Residual current I_{PE}	$\leq 300 \mu\text{A}$ (at U_N)
Operating effective current I_C at U_N	$\leq 300 \mu\text{A}$
Standby power consumption P_C	$\leq 110 \text{ mVA}$
Max. discharge current I_{max} (8/20) μs	40 kA
Max. discharge current I_{max} (8/20) μs maximum (L-N)	40 kA
Max. discharge current I_{max} (8/20) μs maximum (L-PEN)	40 kA
Nominal discharge current I_n (8/20) μs	20 kA
Nominal discharge current I_n (8/20) μs (L-N)	20 kA
Nominal discharge current I_n (8/20) μs (L-PEN)	20 kA
Impulse discharge current (10/350) μs , peak value I_{imp}	3 kA
Max. energy absorption (2 ms)	550 J
Voltage protection level U_p	$\leq 1.35 \text{ kV}$
Voltage protection level U_p (L-N)	$\leq 1.35 \text{ kV}$

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Technical data

Protective circuit

Voltage protection level U_p (L-PEN)	≤ 1.35 kV
Residual voltage	≤ 1 kV (at 5 kA)
Response time	≤ 25 ns
Max. required backup fuse with branch wiring	125 A (gG)
Short-circuit resistance I_p with max. backup fuse (effective)	25 kA

Connection, protective circuit

Connection method	Screw connection
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Screw thread	M5
Tightening torque	4.5 Nm
	30 lb in (UL)
Stripping length	14.5 mm
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	25 mm ²
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	35 mm ²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	2
AWG conductor cross section	10 ... 2 (UL)

Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	EN 61643-11/A11 2007
	NF C61-740 1995
	UL 1449

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

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Classifications

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

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

Ex Approvals

Approvals submitted

Approval details

IECEE CB Scheme

UL Recognized

KEMA-KEUR

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Approvals

ÖVE

cUL Recognized

GOST

GL

CCA

KEMA-KEUR

cULus Recognized

Accessories

Accessories

Bridge

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

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Accessories

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 7 BU - 2856278



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 7-pos., color: Blue

Wiring bridge - MPB 18/1- 8 BU - 2858470



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos., color: Blue

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Accessories

Wiring bridge - MPB 18/1- 8 - 2748577



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

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Accessories

Wiring bridge - MPB 18/3- 9 - 2809254



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 9-pos.

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm

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Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB 18/1-10/1.0.0 - 2830443



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 10 pitches with contact sequence 1-0-0

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Accessories

Wiring bridge - MPB 18/1-20/1.2.5 - 2830168



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 20 pitches with contact sequence 1-2-0-0-5

Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

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Accessories

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

Wiring bridge - MPB 18/1- 8 - 2748577



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

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Accessories

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Feed-through terminal block

Feed-through terminal block - DK-BIC-35 - 2749880



Feed-through terminal block for VAL and FLT applications

Labeled device marker

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Accessories

Zack marker strip - ZBN 18,LGS:ERDE - 2749589



Zack marker strip, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Zack marker strip - ZBN 18,LGS:L1-N,ERDE - 2749576



Zack marker strip, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Marker pen

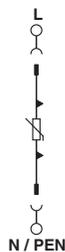
Marker pen - B-STIFT - 1051993



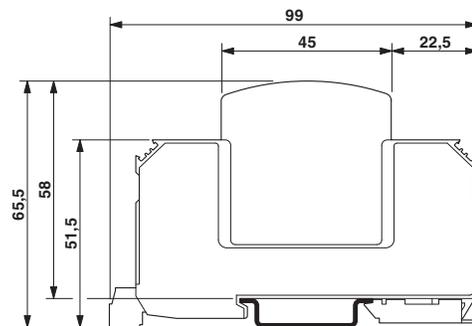
Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Drawings

Circuit diagram



Dimensioned drawing



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

