

## Type 2 surge protection device - VAL-MS 320/3+0-FM - 2920243

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Surge arrester for 4-conductor power supply systems (L1, L2, L3, PEN), consisting of a base element with remote indication contact and protective connectors, for mounting on NS 35.

### Why buy this product

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



### Key commercial data

Packing unit	1
Minimum order quantity	1
Catalog page	Page 37 (TT-2011)
GTIN	 4 046356 157087
Custom tariff number	85363010
Country of origin	GERMANY

### Technical data

#### Standards

Housing material	PBT / PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	IEC 60664-1
Standards for air and creepage distances	DIN EN 61643-11
Degree of protection	IP20
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	3
Ambient temperature (operation)	-40 °C ... 80 °C

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## Technical data

### Standards

Message: Surge protection fault	Optical, remote indicator contact
Direction of action	3L-PEN
Width	53.4 mm
Height	99 mm
Depth	65.5 mm
Pitch unit	3 Div.

### Protective circuit

IEC category	II
IEC category	T2
EN type	T2
Nominal voltage UN	230 V AC (Max. 240/415 V AC)
Nominal voltage UN	400 V AC
Nominal voltage UN	230 V AC ... 415 V AC
Arrester rated voltage UC	335 V AC
Arrester rated voltage UC (L-PEN)	335 V AC
UT (TOV-proof)	415 V AC (5 s)
Nominal frequency fN	50 Hz (60 Hz)
Standby power consumption PC	≤ 330 mVA
Max. discharge surge current I <sub>max</sub> (8/20) μs	40 kA
Max. discharge surge current I <sub>max</sub> (8/20) μs maximum (L-PEN)	120 kA (all channels)
Max. discharge surge current I <sub>max</sub> (8/20) μs maximum (L-PEN)	40 kA
Nominal discharge surge current I <sub>n</sub> (8/20) μs (L-PEN)	60 kA (all channels)
Nominal discharge surge current I <sub>n</sub> (8/20) μs (L-PEN)	20 kA
Protection level UP (L-PEN)	≤ 1.5 kV
Residual voltage (L-PEN)	≤ 1.5 kV
Residual voltage (L-PEN)	≤ 1.4 kV (at 15 kA)
Residual voltage (L-PEN)	≤ 1.3 kV (at 10 kA)
Residual voltage (L-PEN)	≤ 1.2 kV (at 5 kA)
Residual voltage (L-PEN)	≤ 1.1 kV (at 3 kA)
Response time (L-N)	≤ 25 ns
Max. required backup fuse with branch wiring	125 A (gL / gG)
Short-circuit resistance IP 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
Connection method	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm <sup>2</sup>
Conductor cross section stranded max.	25 mm <sup>2</sup>

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#### Connection, protective circuit

Conductor cross section solid min.	1.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

#### Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT contact
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U <sub>max</sub> AC	250 V AC
Maximum operating voltage U <sub>max</sub> DC	30 V DC
Max. operating current I <sub>max</sub>	1.5 A AC (250 V AC)
Max. operating current I <sub>max</sub>	1.5 A DC (30 V DC)
Max. operating current I <sub>max</sub>	1.5 A AC (125 V AC)

#### Standards

Standards/regulations	EN 61643-11 2007
Standards/regulations	IEC 61643-1 2005

### Classifications

#### eClass

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

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## Classifications

unspsc

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

## Approvals

### Approvals

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Approvals

UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GOST / CCA / IECCEB Scheme / cULus Recognized

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Ex Approvals

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Approvals submitted

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### Approval details

UL Recognized

KEMA-KEUR

ÖVE

cUL Recognized


GOST

CCA

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## Approvals

IECEE CB Scheme

cULus Recognized 

## Accessories

### Accessories

### Bridges

Wiring bridge - MPB 18/3- 6 - 2809241



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

Wiring bridge - MPB 18/3- 9 - 2809254



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

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 400 mm

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### Accessories

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 600 mm

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### Marking

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

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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

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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

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Marker pen - B-STIFT - 1051993



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

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## Accessories

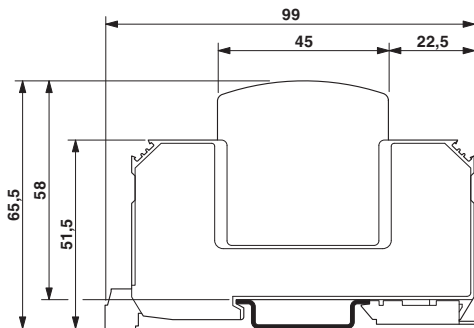
Feed-through terminal block - DK-BIC-35 - 2749880



Feed-through terminal block for VAL and FLT applications

## Drawings

Dimensioned drawing



Circuit diagram

