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Surge arrester for 3-conductor power supply systems (L1, N, PE), 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
- Mechanical coding of all slots
- Multi-channel type 2 arresters
- ☑ Disconnect device on each individual plug
- Optical, mechanical status indication for the individual arresters



### **Key Commercial Data**

Packing unit	1

#### Technical data

#### Note

Trade restriction  The products are offered exclusively for export outside the EU and the European Economic Area.
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#### **Dimensions**

Height	97 mm
Width	35.6 mm
Depth	58 mm

#### 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 (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 500 Hz / 2.5 h / X, Y, Z)

#### General

IEC test classification	II II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	N-PE
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
Design	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

#### Protective circuit

Nominal voltage U <sub>N</sub>	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f <sub>N</sub>	50 Hz (60 Hz)
Maximum continuous operating voltage U <sub>C</sub> (L-N)	275 V AC
Maximum continuous voltage U <sub>C</sub> (N-PE)	260 V AC
Rated load current I <sub>L</sub>	80 A
Residual current I <sub>PE</sub>	≤ 5 μA
Standby power consumption P <sub>C</sub>	≤ 120 mVA
Nominal discharge current I <sub>n</sub> (8/20) µs	20 kA
Maximum discharge current I <sub>max</sub> (8/20) μs	40 kA
Follow current interrupt rating I <sub>fi</sub> (N-PE)	100 A (260 V)
Short-circuit current rating I <sub>SCCR</sub>	25 kA

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## Technical data

#### Protective circuit

Voltage protection level U <sub>p</sub> (L-N)	≤ 1.35 kV
Voltage protection level U <sub>p</sub> (L-PE)	≤ 1.6 kV
Voltage protection level U <sub>p</sub> (N-PE)	≤ 1.5 kV
Residual voltage U <sub>res</sub> (L-N)	≤ 1.35 kV (at I <sub>n</sub> )
	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
Residual voltage U <sub>res</sub> (L-PE)	$\leq$ 1.6 kV (at $I_n$ )
	≤ 1.2 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
Residual voltage U <sub>res</sub> (N-PE)	$\leq$ 0.4 kV (at I <sub>n</sub> )
	≤ 0.25 kV (at 10 kA)
	≤ 0.15 kV (at 5 kA)
	≤ 0.1 kV (at 3 kA)
TOV behavior at U <sub>T</sub> (L-N)	335 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
TOV behavior at U <sub>T</sub> (N-PE)	1200 V AC (200 ms / withstand mode)
Response time t <sub>A</sub> (L-N)	≤ 25 ns
Response time t <sub>A</sub> (N-PE)	≤ 100 ns
Max. backup fuse with branch wiring	125 A AC (gG)
Max. backup fuse with V-type through wiring	80 A AC (gG)

### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC 250 V AC
	30 V DC
Operating current	5 mA AC 1.5 A
	1 A
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm²
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	1.5 mm <sup>2</sup>

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## Technical data

#### Indicator/remote signaling

Conductor cross section AWG	28 16

#### Connection data

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

#### **UL** specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-N)	275 V AC
Maximum continuous operating voltage MCOV (L-G)	275 V AC
Maximum continuous operating voltage MCOV (N-G)	260 V AC
Nom. voltage	230 V AC
Mode of protection	L-N
	L-G
	N-G
Power distribution system	1
Nominal frequency	50/60 Hz
Nominal discharge current I <sub>n</sub> (L-N)	20 kA
Nominal discharge current I <sub>n</sub> (L-G)	20 kA
Nominal discharge current I <sub>n</sub> (N-G)	20 kA

#### UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A
Tightening torque	4 lb <sub>r</sub> in.
Conductor cross section AWG	30 14

#### UL connection data

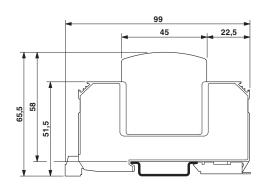
Conductor cross section AWG	10 2
Tightening torque	30 lb <sub>r</sub> -in.

## Drawings

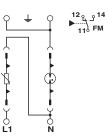
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#### Dimensional drawing



#### Circuit diagram



#### Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801

#### **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 13.2	39121620

#### Accessories

#### Accessories

Bridge



#### Accessories

Wiring bridge - MPB 18/1- 2 - 2809209



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

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



### Accessories

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



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

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 F200X16/ 1GS - 2818339



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



#### Accessories

Wiring bridge - MPB F400X16/ 1GS - 2818342



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

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

#### Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, 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



#### Accessories

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, 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

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, 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

#### Spare parts

Type 2 surge protection plug - VAL-MS 230 ST - 2798844



Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 230 V AC

Type 2 surge protection plug - F-MS 12 ST - 2817990



Surge protection plug type 2, with N-PE total current spark gap for base element.

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## Accessories

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