

Type 2 surge protection device - F-MS 12/FM - 2817974

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Surge arrester type 2, consisting of base element with remote indicator contact and protective plug with N-PE total current spark gap for mounting on NS 35/7.5, housing width: 17.5 mm (1 Div.)



Why buy this product

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



Key commercial data

Packing unit	1 pc
GTIN	 4 017918 163655
Weight per Piece (excluding packing)	115.23 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	96.8 mm
Width	17.7 mm
Depth	65.5 mm
Horizontal pitch	1 Div.

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

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Technical data

Ambient conditions

Permissible humidity (operation)	5 % ... 95 %
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General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1
	EN 61643-11
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	Optical, remote indicator contact
Direction of action	N-PE

Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC
Nominal DC sparkover voltage U_{agn}	500 V \pm 20 %
Maximum continuous operating voltage U_C	260 V AC
Maximum continuous operating voltage U_C (N-PE)	260 V AC
U_T (TOV-proof)	1200 V AC (200 ms / N-PE)
Nominal frequency f_N	50 Hz
	60 Hz
Residual current I_{PE}	$\leq 1 \mu A$
Standby power consumption P_C	0.3 mVA
Max. discharge current I_{max} (8/20) μs	40 kA
Max. discharge current I_{max} (8/20) μs maximum (N-PE)	40 kA
Nominal discharge current I_n (8/20) μs	20 kA
Nominal discharge current I_n (8/20) μs (N-PE)	20 kA
Impulse discharge current (10/350) μs , charge	6 As
Impulse discharge current (10/350) μs , peak value I_{imp}	12 kA
Front of wave sparkover voltage at 6 kV (1.2/50) μs (N-PE)	≤ 1.5 kV
Insulation resistance R_{iso}	> 1 G Ω
Voltage protection level U_p	≤ 1.5 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Residual voltage	≤ 150 V (at 5 kA)
Residual voltage (N-PE)	≤ 150 V (at 5 kA)
	≤ 400 V
	≤ 250 V (at 10 kA)

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Protective circuit

	≤ 100 V (at 3 kA)
Response time	≤ 100 ns
Response time (N-PE)	≤ 100 ns
Follow current quenching capacity I _f (N-PE)	100 A (260 V)

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
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

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 ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U _{max} AC	250 V AC
Maximum operating voltage U _{max} DC	30 V DC
Max. operating current I _{max}	1 A AC (250 V AC)
	1 A DC (30 V DC)
Min. permissible switching capacity	0.12 VA (12 V, 10 mA)

Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	EN 61643-11/A11 2007

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

Approvals

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

Ex Approvals


Approvals submitted

Approval details

IECEE CB Scheme 


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UL Recognized 

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Accessories

Accessories

Bridge

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Accessories

Wiring bridge end cover - MPB 18/4-D - 2809335



End cover for lateral connection of wiring bridges, 4-phase

Wiring bridge end cover - MPB 18/3- D - 2809322

End cover for lateral connection of wiring bridges, 3-phase

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 F400X16/ 1GS - 2818342



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

Labeled device marker

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

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Accessories

Marker pen - B-STIFT - 1051993



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

Replacement plug

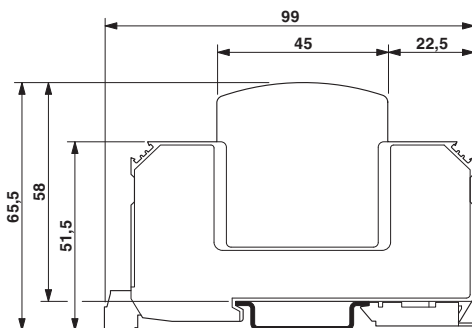
Type 2 surge protection plug - F-MS 12 ST - 2817990



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

Drawings

Dimensioned drawing



Circuit diagram

