

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0/I - 2800170

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Type 1 / Class I (lightning current arrester) with arc chopping spark gap and ignition electronics with control lamp, quenching plates for high mains follow-through current quenching capacity, 1-channel. Protection level: 3 kV. Housing width: 35 mm (2 Div.)

The figure shows version FLT-PLUS CTRL-0,9

### Why buy this product

- High discharge capacity
- Good follow current quenching capacity with higher rated voltage
- 1-channel
- Direct parallel connection with type 2 arresters supported
- Triggered

### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	580.000 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	150 mm
Width	35.5 mm
Depth	80.5 mm
Horizontal pitch	2 Div.

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C

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## Technical data

### Ambient conditions

Permissible humidity (operation)	≤ 95 %
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### General

IEC power supply system	TT
	TN-C
	TN-S
	IT
Housing material	PA-GF
Flammability rating according to UL 94	V0
Color	black
Standards for clearances and creepage distances	EN 60664-1
	EN 61643-11
Mounting type	DIN rail: 35 mm
Type	DIN rail module, one-piece
Number of positions	1
Surge protection fault message	optical
Direction of action	1L-N/PE

### Protective circuit

IEC test classification	I
	T1
EN type	T1
Maximum continuous operating voltage $U_C$	440 V AC
Maximum continuous operating voltage $U_C$ (L-N)	440 V AC
Maximum continuous operating voltage $U_C$ (L-PEN)	440 V AC
$U_T$ (TOV-proof)	580 V AC (5 sec.)
$U_T$ (TOV-safe)	1640 V AC (200 ms)
Nominal frequency $f_N$	50 Hz
	60 Hz
Residual current $I_{PE}$	≤ 3 mA
Standby power consumption $P_C$	≤ 1.32 VA
Max. discharge current $I_{max}$ (8/20) $\mu$ s	50 kA
Impulse discharge current (10/350) $\mu$ s, charge	25 As
Impulse discharge current (10/350) $\mu$ s, specific energy	625 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	50 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s	50 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-N)	50 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PEN)	50 kA

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## Technical data

### Protective circuit

Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s	$\leq 3$ kV
Voltage protection level $U_p$	$\leq 3$ kV
Voltage protection level $U_p$ (L-N)	$\leq 3$ kV
Voltage protection level $U_p$ (L-PEN)	$\leq 3$ kV
Response time $t_A$	$\leq 100$ ns
Response time $t_A$ (L-N)	$\leq 100$ ns
Response time $t_A$ (L-PE)	$\leq 100$ ns
Max. backup fuse with branch wiring	500 A (NH-gL)
Short-circuit withstand capability $I_p$ with max. backup fuse (r.m.s.)	25 kA (440 V AC)
	50 kA (350 V AC)
Follow current interrupt rating $I_{fi}$	25 kA (440 V AC)
	50 kA (350 V AC)

### Connection, protective circuit

Connection method	Screw connection
Connection method IN	Biconnect screw terminal block
Connection method OUT	Biconnect screw terminal block
Connection technology	Biconnect terminal block
Screw thread	M6
Tightening torque	8 Nm
Stripping length	19 mm
Conductor cross section flexible min.	16 mm <sup>2</sup>
Conductor cross section flexible max.	35 mm <sup>2</sup>
Conductor cross section solid min.	10 mm <sup>2</sup>
Conductor cross section solid max.	50 mm <sup>2</sup>
Conductor cross section AWG min.	6
Conductor cross section AWG max.	1

### Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	DIN EN 61643-11 2002
	DIN EN 61643-11/A11 2007

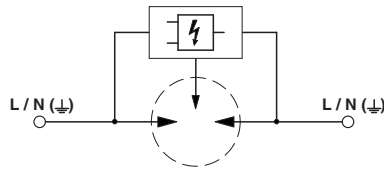
### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

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Circuit diagram



## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27140201
eCl@ss 5.0	27140201
eCl@ss 5.1	27140201
eCl@ss 6.0	27140201
eCl@ss 7.0	27140201
eCl@ss 8.0	27130802
eCl@ss 9.0	27130802

### ETIM

ETIM 2.0	EC000381
ETIM 3.0	EC000381
ETIM 4.0	EC000381
ETIM 5.0	EC000381

### UNSPSC

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

## Accessories

Accessories

Bridge

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### Accessories

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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Wiring bridge - MPB 18/1-12 - 2748593



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

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Wiring bridge - MPB 18/1-9 - 2748580



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

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Wiring bridge - MPB 18/1-8 - 2748577



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

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Wiring bridge - MPB 18/1-6 - 2748564



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

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## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0/I - 2800170

### Accessories

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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Wiring bridge - MPB 18/1- 3 - 2809212



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

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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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### 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 size: 18 x 5 mm

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### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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### Accessories

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#### 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 size: 18 x 5 mm

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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 size: 18 x 5 mm

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#### 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

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