

# Lightning arrester type 1 - 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 illustration shows version FLT-PLUS CTRL-0,9

## Why buy this product

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



## Key commercial data

Packing unit	1 pc
GTIN	 4 046356 497787
Weight per Piece (excluding packing)	564.4 g
Custom tariff number	85363010
Country of origin	Germany
Note	Made to Order (non-returnable)

## 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
Permissible humidity (operation)	≤ 95 %

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## Technical data

### General

IEC power supply system	TT
	TN-C
	TN-S
	IT
Housing material	PA-GF
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1
	EN61643-11
Mounting type	DIN rail: 35 mm
Type	Rail-mountable 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
Nominal voltage $U_N$	230 V AC (400 V AC)
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 $I_{PE}$	$\leq 3$ mA
Standby power consumption $P_C$	$\leq 1.32$ VA
Max. discharge current $I_{max}$ (8/20) $\mu$ s	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
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
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

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## Technical data

### Protective circuit

Response time	≤ 100 ns
Response time (L-N)	≤ 100 ns
Response time (L-PEN)	≤ 100 ns
Max. backup fuse with branch wiring	500 A (NH-gL)
Short-circuit resistance I <sub>p</sub> with max. backup fuse (effective)	25 kA (440 V AC)
	50 kA (350 V AC)
Follow current quenching capacity I <sub>f</sub>	25 kA (440 V AC)
	50 kA (350 V AC)

### 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	M6
Tightening torque	8 Nm
Stripping length	19 mm
Conductor cross section stranded min.	16 mm <sup>2</sup>
Conductor cross section stranded 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/kcmil min.	6
Conductor cross section AWG/kcmil max	1

### Standards and Regulations

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

### 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

#### ETIM

ETIM 2.0	EC000381
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## Classifications

### ETIM

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

## Approvals

### Approvals

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#### Approvals

UL Recognized / KEMA-KEUR / cUL Recognized / GL / CCA / IEC60384-14 / EAC / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

UL Recognized

KEMA-KEUR


cUL Recognized

GL


CCA

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## Approvals

IECEE CB Scheme 

EAC

cULus Recognized 

## Accessories

### Accessories

#### Bridge

Wiring bridge - MPB 18/1-57 - 2809238



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

Wiring bridge - MPB 18/1-12 - 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.

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## Accessories

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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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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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- MPB 18/1- 3 - 2809212

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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: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

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## End block

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## Accessories

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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## 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

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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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## Drawings

Circuit diagram

