

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

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

### Why buy this product

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

#### Note

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

#### Dimensions

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

# Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

## Technical data

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Permissible humidity (operation)	≤ 95 %

### General

IEC power supply system	TT
	TN-C
	TN-S
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	none
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 $I_{PE}$	≤ 0.1 mA
Standby power consumption $P_C$	≤ 44 mVA
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

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

### Technical data

#### Protective circuit

Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PEN)	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
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

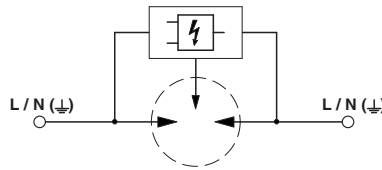
#### Environmental Product Compliance

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

# Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

## Drawings

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

## Approvals

### Approvals

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

### Approvals

Approvals

EAC

---

Ex Approvals

---

### Approval details

EAC		RU C- DE.A*30.B01561
-----	---	-------------------------

### 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.

---

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

### Accessories

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.

---

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

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

### Accessories

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

---

### 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

---

### 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

---

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

---

### Marker pen

## Combination type 1/2 protective device - FLT-PLUS CTRL-3.0 - 2800168

### Accessories

Marker pen - B-STIFT - 1051993



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

---

Phoenix Contact 2018 © - all rights reserved  
<http://www.phoenixcontact.com>