

FLT-PLUS CTRL-3.0 - Type 1+2 combined lightning current and surge arrester



2800168

<https://www.phoenixcontact.com/in/products/2800168>

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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.)



Commercial Data

| | |
|--------------------------------------|--------------------|
| Item number | 2800168 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | CL1 |
| Product Key | CL1121 |
| Catalog Page | Page 31 (C-6-2013) |
| GTIN | 4046356497558 |
| Weight per Piece (including packing) | 567.9 g |
| Weight per Piece (excluding packing) | 567.9 g |
| Customs tariff number | 85363010 |
| Country of origin | IN |

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Technical Data

Notes

Trade restriction

| | |
|---------|--|
| CE note | The products are offered exclusively for export outside the EU and the European Economic Area. |
|---------|--|

Product properties

| | |
|--------------------------------|----------------------------|
| IEC test classification | I |
| | T1 |
| EN type | T1 |
| IEC power supply system | TT |
| | TN-C |
| | TN-S |
| Type | DIN rail module, one-piece |
| Product type | Combination type |
| Number of positions | 1 |
| Surge protection fault message | none |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |

Electrical properties

| | |
|-------------------------|---------------------|
| Nominal frequency f_N | 50 Hz |
| | 60 Hz |
| Nominal voltage U_N | 230 V AC (400 V AC) |

Connection data

| | |
|---------------------------------------|--------------------|
| Connection method | Screw connection |
| Screw thread | M6 |
| Tightening torque, min | 8 Nm |
| Stripping length | 19 mm |
| Conductor cross section flexible min. | 16 mm ² |
| Conductor cross section flexible max. | 35 mm ² |
| Conductor cross section, rigid min. | 10 mm ² |
| Conductor cross section, rigid max. | 50 mm ² |

Dimensions

| | |
|--------|---------|
| Width | 35.5 mm |
| Height | 150 mm |
| Depth | 80.5 mm |

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| | |
|------------------|--------|
| Horizontal pitch | 2 Div. |
|------------------|--------|

Material specifications

| | |
|--|-------|
| Color | black |
| Flammability rating according to UL 94 | V0 |
| Housing material | PA-GF |

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

| | |
|--|------------------|
| Direction of action | 1L-N/PE |
| Nominal frequency f_N | 50 Hz |
| | 60 Hz |
| Maximum continuous 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 |
| Residual current I_{PE} | ≤ 0.1 mA |
| Standby power consumption P_C | ≤ 44 mVA |
| Nominal discharge current I_n (8/20) μ s | 50 kA |
| Nominal discharge current I_n (8/20) μ s (L-N) | 50 kA |
| Nominal discharge current I_n (8/20) μ s (L-PEN) | 50 kA |
| Maximum discharge current I_{max} (8/20) μ s | 50 kA |
| Impulse discharge current (10/350) μ s, charge | 25 As |
| Impulse discharge current (10/350) μ s, specific energy | 625 kJ/ Ω |
| Impulse discharge current (10/350) μ s, peak value I_{imp} | 50 kA |
| Follow current interrupt rating I_{fi} | 25 kA (440 V AC) |
| | 50 kA (350 V AC) |
| Voltage protection level U_p | ≤ 3 kV |
| Voltage protection level U_p (L-N) | ≤ 3 kV |
| Voltage protection level U_p (L-PEN) | ≤ 3 kV |
| Front of wave sparkover voltage at 6 kV (1.2/50) μ s | ≤ 3 kV |
| Response time t_A | ≤ 100 ns |
| Response time t_A (L-N) | ≤ 100 ns |
| Response time t_A (L-PEN) | ≤ 100 ns |
| Max. backup fuse with branch wiring | 500 A (NH-gL) |

Environmental and real-life conditions

Ambient conditions

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

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| | |
|----------------------------------|--------|
| Permissible humidity (operation) | ≤ 95 % |
|----------------------------------|--------|

Standards and regulations

Air clearances and creepage distances

| | |
|-----------------------|--------------------------|
| Standards/regulations | EN 60664-1 / EN 61643-11 |
|-----------------------|--------------------------|

Standards

| | |
|--------------------------|---------------------|
| Standards/regulations | IEC 61643-1 |
| | DIN EN 61643-11 |
| | DIN EN 61643-11/A11 |
| Standards/specifications | IEC 61643-1 |
| Standards/specifications | DIN EN 61643-11 |
| Standards/specifications | DIN EN 61643-11/A11 |

Mounting

| | |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

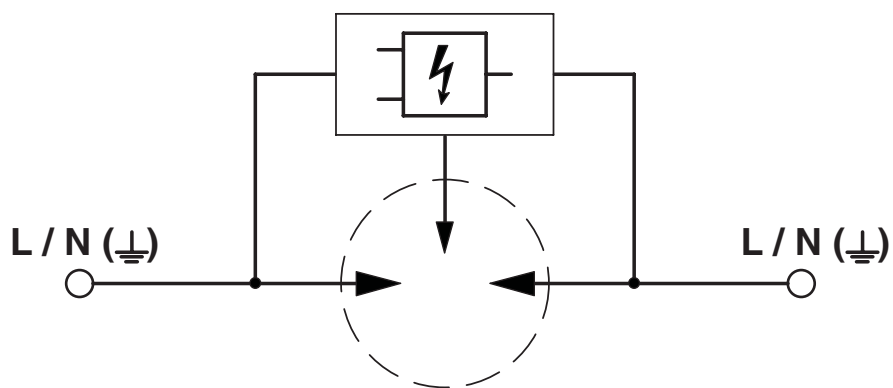
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Drawings

Circuit diagram



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Approvals



EAC

Approval ID: RU C-DE.*09.B.00169

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Environmental Product Compliance

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

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Accessories

MPB 18/1-57 - Wiring bridge

2809238

<https://www.phoenixcontact.com/in/products/2809238>



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

MPB 18/1-12 - Wiring bridge

2748593

<https://www.phoenixcontact.com/in/products/2748593>



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

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MPB 18/1- 9 - Wiring bridge

2748580

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

MPB 18/1- 8 - Wiring bridge

2748577

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

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MPB 18/1- 6 - Wiring bridge

2748564

<https://www.phoenixcontact.com/in/products/2748564>



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

MPB 18/1- 4 - Wiring bridge

2809225

<https://www.phoenixcontact.com/in/products/2809225>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

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MPB 18/1- 3 - Wiring bridge

2809212

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

MPB 18/1- 2 - Wiring bridge

2809209

<https://www.phoenixcontact.com/in/products/2809209>



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

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CLIPFIX 35 - End clamp

3022218

<https://www.phoenixcontact.com/in/products/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



B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>

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



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ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

<https://www.phoenixcontact.com/in/products/2749589>

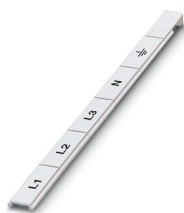


Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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

2749576

<https://www.phoenixcontact.com/in/products/2749576>



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/in/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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