

# FLT-PLUS - Type 1 surge protection device



2816386

<https://www.phoenixcontact.com/in/products/2816386>

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Type 1 / Class I / B arrester (lightning current arrester) with arc chopping spark gap, quenching plates for high mains follow-through current quenching capacity, 1-channel. Protection level: 4 kV. Housing width: 35 mm (2 Div.)



## Commercial Data

Item number	2816386
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	CL1
Product Key	CL1132
Catalog Page	Page 21 (TT-2007)
GTIN	4017918130060
Weight per Piece (including packing)	524.98 g
Weight per Piece (excluding packing)	498.39 g
Customs tariff number	85363010
Country of origin	IN

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## Technical Data

### Product properties

IEC test classification	I
	T1
EN type	T1
Type	DIN rail module, one-piece
Number of positions	1

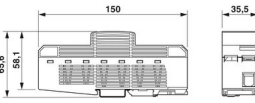
### Electrical properties

Nominal frequency $f_N$	50 Hz
	60 Hz
Nominal voltage $U_N$	400 V AC (400/690 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 <sup>2</sup>
Conductor cross section flexible max.	35 mm <sup>2</sup>
Conductor cross section, rigid min.	10 mm <sup>2</sup>
Conductor cross section, rigid max.	50 mm <sup>2</sup>

### Dimensions

Dimensional drawing	
Width	35.5 mm
Height	149.8 mm
Depth	80.5 mm
Horizontal pitch	2 Div.

### Material specifications

Color	black
Flammability rating according to UL 94	V0
Housing material	PBT/PA-F

### Mechanical properties

#### Mechanical data

Open side panel	No
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## Protective circuit

Direction of action	1L-N/PE
Nominal frequency $f_N$	50 Hz
	60 Hz
Maximum continuous operating voltage $U_C$ (L-N)	440 V AC
Maximum continuous operating voltage $U_C$ (L-PE)	440 V AC
Maximum continuous operating voltage $U_C$ (L-PEN)	440 V AC
Residual current $I_{PE}$	$\leq 1 \mu A$
Operating effective current $I_C$ at $U_N$	$\leq 1 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (L-N)	50 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (L-PE)	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
Follow current quenching capacity $I_{fi}$ (L-N)	50 kA (400 V AC)
Follow current quenching capacity $I_{fi}$ (L-PEN)	50 kA (400 V AC)
Voltage protection level $U_p$ (L-N)	$\leq 4$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 4$ kV
Voltage protection level $U_p$ (L-PEN)	$\leq 4$ kV
Response time $t_A$ (L-N)	$\leq 100$ ns
Response time $t_A$ (L-PE)	$\leq 100$ ns
Response time $t_A$ (L-PEN)	$\leq 100$ ns
Max. backup fuse with branch wiring	250 A (gL)

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	VDE 0110-1 / IEC 60664-1 / VDE 0675-6
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### Standards

Standards/regulations	E DIN VDE 0675-6/A1
	UL 1449
	IEEE C62.1
	IEEE C62.41
	IEC 61643-1
	prEN 61643-1
	EN 61643-11

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Standards/specifications	IEC 61643-1
Standards/specifications	EN 61643-11

## Mounting

Mounting type	DIN rail: 35 mm
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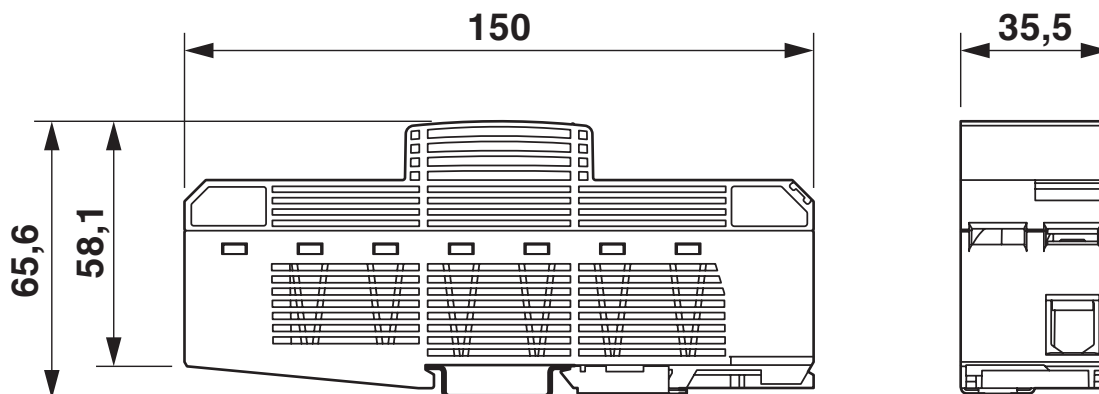
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## Drawings

Circuit diagram



Dimensional drawing



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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.

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### 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

<https://www.phoenixcontact.com/in/products/2748580>



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

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## MPB 18/1- 8 - Wiring bridge

2748577

<https://www.phoenixcontact.com/in/products/2748577>



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.



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## 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

<https://www.phoenixcontact.com/in/products/2809212>

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



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## 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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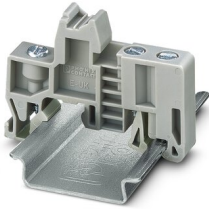


## E/UK - End clamp

1201442

<https://www.phoenixcontact.com/in/products/1201442>

End clamp, material: PA, color: gray, Mounting on a DIN rail NS 32 or NS 35



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## 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>



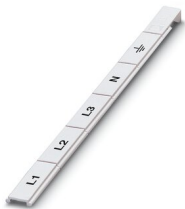
Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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## 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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