

# MT-2/1-S- 48DC - Surge protection device



2748056

<https://www.phoenixcontact.com/us/products/2748056>

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Rail-mountable module with surge voltage fine protection, mounting on NS 35/7.5. Nominal voltage: 48 V DC, housing width: 12.5 mm

## Commercial data

Item number	2748056
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	CL2251
GTIN	4017918062309
Weight per piece (including packing)	36.78 g
Weight per piece (excluding packing)	30.725 g
Country of origin	DE

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## Technical data

### Product properties

Product type	Surge protection for MCR technology
IEC test classification	C1
	C2
	C3
Type	DIN rail module, one-piece
Number of positions	2
Surge protection fault message	none
Wire pairs per module	1

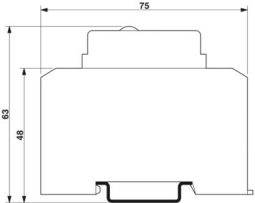
### Electrical properties

Nominal voltage $U_N$	48 V DC
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### Connection data

Connection method	Screw terminal blocks
Screw thread	M3
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

### Dimensions

Dimensional drawing	
Width	12.4 mm
Height	77.5 mm
Depth	55 mm

### Material specifications

Flammability rating according to UL 94	V-0
Housing material	PA-F

### Mechanical properties

#### Mechanical data

Open side panel	No
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### Protective circuit

Direction of action	Line-Line
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Nominal voltage $U_N$	48 V DC
Maximum continuous operating voltage $U_C$	52 V DC
	36 V AC
Rated current	6 A
Operating effective current $I_C$ at $U_C$	$\leq 10 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-line)	1.1 kA
Total discharge current $I_{\text{Total}}$ (8/20) $\mu\text{s}$	1.1 kA
Max. discharge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (line-line)	1.1 kA
Nominal pulse current $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (line-line)	119 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) static	$\leq 80 \text{ V}$
Residual voltage at $I_n$ (conductor-conductor)	$\leq 115 \text{ V}$
Residual voltage with $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (line-line)	$\leq 85 \text{ V}$
Response time $t_A$ (line-line)	$\leq 1 \text{ ns}$
Capacity (Core-Core)	typ. 3.5 nF
Surge protection fault message	none
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C2 - 2 kV / 1 kA
	C3 - 100 A

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

### Standards Information technology specification

Standards/regulations	IEC 61643-21
	IEC 61643-21

### Air clearances and creepage distances

Standards/regulations	VDE 0110-1
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## Mounting

Mounting type	DIN rail: 35 mm
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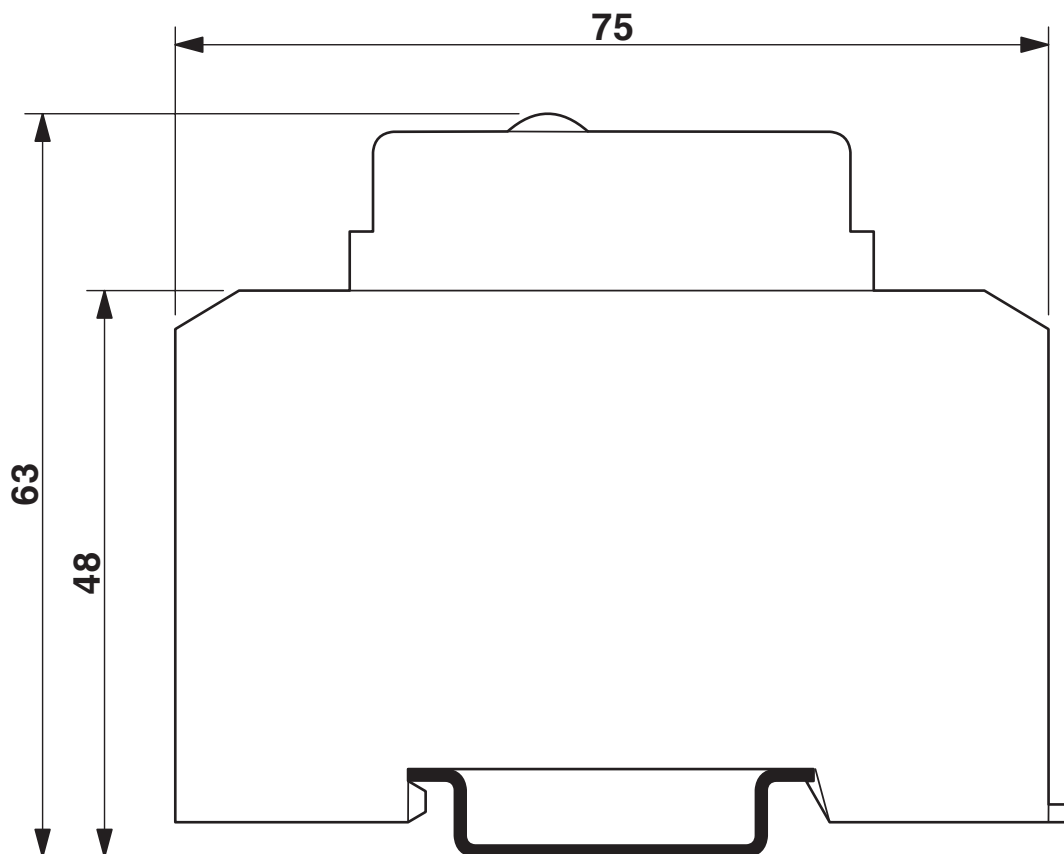


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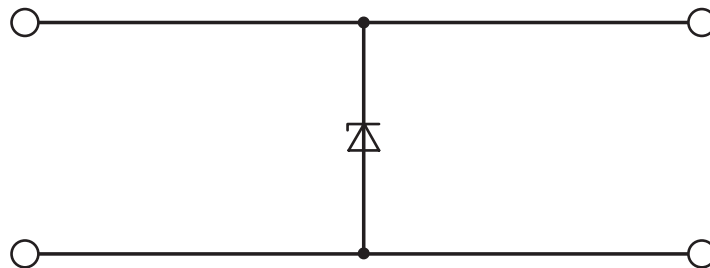
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## Drawings

Dimensional drawing



Circuit diagram



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## Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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