

## EMC filter surge protection device - SFP 1-20/230AC - 2859987

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Device surge protection filter to limit powerful surge voltages, mounting on NS 35.

### Product description

Device protection with interference filter

### Why buy this product

- ☒ Can be installed in industrial environments
- ☒ Combined protective circuit for absorbing transient surge voltages and high-frequency interference voltages
- ☒ Thermal monitoring of the protective circuit
- ☒ Disconnection status signaled via floating remote indication contact



### Key commercial data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 1                                                                                                       |
| Minimum order quantity | 1                                                                                                       |
| Catalog page           | Page 230 (TT-2011)                                                                                      |
| GTIN                   | <br>4 046356 098175 |
| Custom tariff number   | 85363010                                                                                                |
| Country of origin      | GERMANY                                                                                                 |

### Technical data

#### Standards

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Housing material                         | ABS, V0(UL-94)                   |
| Inflammability class according to UL 94  | V0                               |
| Color                                    | aluminum                         |
| Standards for air and creepage distances | DIN VDE 0110-1                   |
| Standards for air and creepage distances | IEC 60664-1                      |
| Standards for air and creepage distances | IEC 61643-1                      |
| Degree of protection                     | IP20                             |
| Design                                   | Rail-mountable module, one-piece |
| Mounting type                            | DIN rail: 35 mm                  |
| Number of positions                      | 2                                |

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## Technical data

### Standards

|                                         |                           |
|-----------------------------------------|---------------------------|
| Ambient temperature (storage/transport) | -40 °C ... 85 °C          |
| Ambient temperature (operation)         | -40 °C ... 70 °C          |
| For country-specific use in             | D, A, I, NL, S, E, FIN, P |
| Direction of action                     | L-N & L(N)-PE             |
| Width                                   | 112 mm                    |
| Height                                  | 93 mm                     |
| Depth                                   | 79 mm                     |

### Protective circuit

|                                                            |                                           |
|------------------------------------------------------------|-------------------------------------------|
| IEC category                                               | III                                       |
| IEC category                                               | T3                                        |
| EN type                                                    | T3                                        |
| Nominal voltage UN                                         | 230 V AC                                  |
| Arrester rated voltage UC (L-N)                            | 264 V AC                                  |
| Nominal frequency fN                                       | 50 Hz                                     |
| Nominal frequency fN                                       | 60 Hz                                     |
| Nominal current IN                                         | 20 A (40°C)                               |
| Ground conductor current IPE                               | ≤ 0.57 mA                                 |
| Nominal discharge surge current In (8/20) μs (L-N)         | 5 kA                                      |
| Nominal discharge surge current In (8/20) μs (L-PE)        | 5 kA                                      |
| Max. discharge surge current Imax (8/20) μs maximum (L-N)  | 10 kA                                     |
| Max. discharge surge current Imax (8/20) μs maximum (L-PE) | 10 kA                                     |
| Combined surge UOC                                         | 10 kV                                     |
| Protection level UP (L-N)                                  | ≤ 1 kV                                    |
| Protection level UP (L-PE)                                 | ≤ 1 kV                                    |
| Protection level UP (N-PE)                                 | ≤ 1 kV                                    |
| Response time tA (L-N)                                     | ≤ 25 ns                                   |
| Response time tA (L-PE)                                    | ≤ 25 ns                                   |
| Response time tA (N-PE)                                    | ≤ 25 ns                                   |
| Inductivity in series                                      | 2x 1 mH ±30 % (with current compensation) |
| Capacity (L-N)                                             | 1 μF ±10 % (X2-275 V)                     |
| Capacity (L-PE)                                            | 2.2 nF ±20 % (Y2-250 V)                   |
| Capacity (L-PEN)                                           | 2.2 nF ±20 % (Y2-250 V)                   |
| Max. required back-up fuse                                 | 20 A (gL / gG)                            |
| Input attenuation aE, sym.                                 | 20 dB (≥ 100 kHz / 50 Ω)                  |
| Input attenuation aE, asym.                                | 30 dB (≥ 1 MHz / 50 Ω)                    |
| Message: Surge protection fault                            | Remote indicator contact                  |

### Non-heating apparatus connection, power supply

|                     |                        |
|---------------------|------------------------|
| Connection name     | Input/output           |
| Connection method   | Screw terminal blocks  |
| Connection type IN  | Screw terminal blocks  |
| Connection type OUT | Screw terminal blocks  |
| Connection method   | 3-conductor (shielded) |

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## Technical data

### Non-heating apparatus connection, power supply

|                                        |                   |
|----------------------------------------|-------------------|
| Screw thread                           | M3                |
| Stripping length                       | 8 mm              |
| Conductor cross section stranded min.  | 4 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 4 mm <sup>2</sup> |
| Conductor cross section solid min.     | 4 mm <sup>2</sup> |
| Conductor cross section solid max.     | 6 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 12                |
| Conductor cross section AWG/kcmil max  | 10                |

### Remote indicator contact

|                                                 |                                |
|-------------------------------------------------|--------------------------------|
| Connection name                                 | Remote fault indicator contact |
| Switching function                              | PDT, 1-pos.                    |
| Connection method                               | Pluggable screw connection     |
| Screw thread                                    | M2                             |
| Tightening torque                               | 0.25 Nm                        |
| Stripping length                                | 7 mm                           |
| Conductor cross section stranded min.           | 0.14 mm <sup>2</sup>           |
| Conductor cross section stranded max.           | 1.5 mm <sup>2</sup>            |
| Conductor cross section solid min.              | 0.14 mm <sup>2</sup>           |
| Conductor cross section solid max.              | 1.5 mm <sup>2</sup>            |
| Conductor cross section AWG/kcmil min.          | 28                             |
| Conductor cross section AWG/kcmil max           | 16                             |
| Maximum operating voltage U <sub>max</sub> . AC | 250 V AC                       |
| Max. operating current I <sub>max</sub>         | 1 A (250 V AC)                 |
| Max. operating current I <sub>max</sub>         | 0.25 A (250 V DC)              |
| Max. operating current I <sub>max</sub>         | 1 A (48 V DC)                  |

### Connection, protective circuit

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

### Protective circuit, filter

|                    |          |
|--------------------|----------|
| Discharge resistor | ≤ 680 kΩ |
|--------------------|----------|

## Classifications

### eclass

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
| eCl@ss 4.1 | 27130801 |
| eCl@ss 5.0 | 27130801 |
| eCl@ss 5.1 | 27130801 |
| eCl@ss 6.0 | 27130806 |
| eCl@ss 7.0 | 27130806 |

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## Classifications

etim

|          |          |
|----------|----------|
| ETIM 2.0 | EC000942 |
| ETIM 3.0 | EC000942 |
| ETIM 4.0 | EC000942 |
| ETIM 5.0 | EC000942 |

unspsc

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11     | 39121610 |
| UNSPSC 12.01  | 39121610 |
| UNSPSC 13.2   | 39121620 |

## Approvals

Approvals

Approvals

GOST

Ex Approvals

Approvals submitted

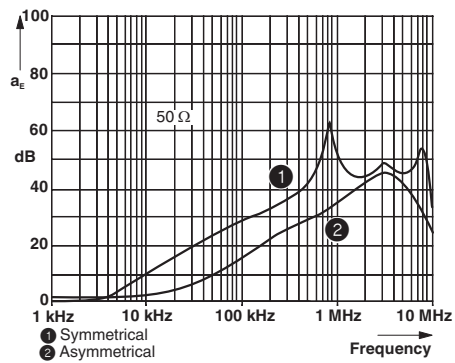
Approval details

|                                                                                          |
|------------------------------------------------------------------------------------------|
| GOST  |
|------------------------------------------------------------------------------------------|

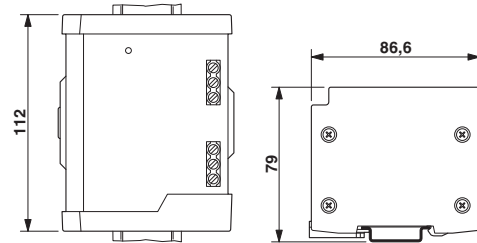
## Drawings

## EMC filter surge protection device - SFP 1-20/230AC - 2859987

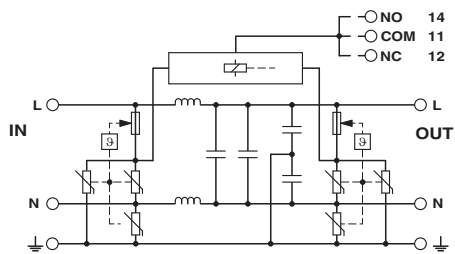
Diagram



Dimensioned drawing



Circuit diagram





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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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