

PLC-OSP-120AC/300DC/ 1 - Solid-state relay module



2980872

<https://www.phoenixcontact.com/us/products/2980872>

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PLC-INTERFACE, integrated solid-state relay, with spring-cage connection, for mounting on NS 35/7,5 DIN rails, input: 120 V AC, output: 12 - 300 V DC/1 A

The figure shows the version PLC-OSC-24DC/300DC/1

Your advantages

- Wear-free switching with no contact bounce
- Resistant to vibrations and shocks
- Protective circuit in input and output
- Status indicator
- DC voltage outputs up to 300 V DC/1 A
- Option of bridging adjacent modules

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2980872 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C461 |
| Product key | DK6223 |
| GTIN | 4046356051606 |
| Weight per piece (including packing) | 35.77 g |
| Weight per piece (excluding packing) | 35.77 g |
| Customs tariff number | 85364900 |
| Country of origin | DE |

Technical data

Notes

Utilization restriction

| | |
|----------|---|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---|

Product properties

| | |
|----------------|-----------------------------------|
| Product type | Solid-state relay module |
| Product family | PLC-INTERFACE |
| Application | With integrated solid-state relay |
| Operating mode | 100% operating factor |

Insulation characteristics: Standards/regulations

| | |
|----------------------|------------------|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

Electrical properties

Standards/regulations

| | |
|--------------------------|--------|
| Rated insulation voltage | 300 V |
| Rated surge voltage | 2.5 kV |

Input data

| | |
|--|------------------------------------|
| Nominal input voltage U_N | 120 V AC |
| Input voltage range in reference to U_N | 0.8 ... 1.1 |
| Input voltage range | 96 V AC ... 132 V AC |
| Switching threshold "0" signal in reference to U_N | ≤ 0.4 |
| Switching threshold "1" signal in reference to U_N | ≥ 0.8 |
| Typical input current at U_N | 5.6 mA |
| Typical response time | 19 ms |
| Typical turn-off time | 6 ms |
| Operating voltage display | Yellow LED |
| Protective circuit | Bridge rectifier; Bridge rectifier |
| Transmission frequency | 10 Hz |

Output data

| | |
|--------------------------|---------------|
| Designation | Output data |
| Contact switching type | 1 N/O contact |
| Design of digital output | electronic |

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| | |
|--|---|
| Output voltage range | 12 V DC ... 300 V DC (Partition plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal points in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...) |
| Limiting continuous current | 1 A (see derating curve) |
| Voltage drop at max. limiting continuous current | < 500 mV |
| Protective circuit | Reverse polarity protection; Polarity protection diode Surge protection; Varistor |

Connection data

Input side

| | |
|----------------------------------|--|
| Connection method | Spring-cage connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 26 ... 14 |

Output side

| | |
|----------------------------------|--|
| Connection method | Spring-cage connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 26 ... 14 |

Dimensions

| | |
|--------|--------|
| Width | 6.2 mm |
| Height | 80 mm |
| Depth | 86 mm |

Material specifications

| | |
|--|------------------|
| Color | green (RAL 6021) |
| Flammability rating according to UL 94 (Housing) | V0 (Housing) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Standards and regulations

Standards/regulations

| | |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |

Mounting

| | |
|---------------|---------------------------|
| Assembly note | in rows with zero spacing |
|---------------|---------------------------|

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| | |
|-------------------|-----|
| Mounting position | any |
|-------------------|-----|

Drawings

Diagram



① Input voltages 220 V DC/230 V AC

The figure shows the derating curve for PLC-...300DC/1

Circuit diagram



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Environmental product compliance

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

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

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