

ST-OV3-220DC/240AC/3 - Solid-state relay



2903105

<https://www.phoenixcontact.com/us/products/2903105>

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Pluggable power optocoupler, with light indicator and protection circuits in the input and output circuits, input: 220 V DC, output: 24-280 V AC/max. 3 A, can be plugged on basic termination blocks

The figure shows version ST-OV
3- 5 DC/240 AC/3

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2903105 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | NULL |
| Product key | DK61B3 |
| GTIN | 4017918078935 |
| Weight per piece (including packing) | 61.15 g |
| Weight per piece (excluding packing) | 61.15 g |
| Customs tariff number | 85364900 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|------------------------------|--------------------------|
| Product type | Single solid-state relay |
| Data management status | |
| Date of last data management | 05.09.2025 |

Electrical properties

| | |
|-----------------------------|--------------------------|
| Test voltage (Input/output) | 2.5 kV AC (Input/output) |
|-----------------------------|--------------------------|

Input data

| | |
|---|---|
| Nominal input voltage U_N | 220 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |
| Input voltage range | 176 V DC ... 144 V DC |
| Switching threshold "0" signal, voltage | ≤ 86 V |
| Switching threshold "1" signal voltage | ≥ 106 V |
| Typical input current at U_N | 7 mA |
| Typical response time | switch-on time: Max. one half cycle - zero-voltage crossing |
| Typical turn-off time | switch-off time Max. one half cycle - zero-current crossing |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| Transmission frequency | 25 Hz |

Output data

| | |
|--|---|
| Design of digital output | electronic |
| Output voltage range | 24 V AC ... 280 V AC |
| Limiting continuous current | 3 A (see derating curve) |
| Min. load current | 50 mA |
| Leakage current | 5 mA (in off state - components with low minimum load and leakage currents on request.) |
| Surge current | 35 A (t = 10 ms) |
| Phase angle $\cos \phi$ min | 0.5 |
| Max. load value | $6 \text{ A}^2\text{s}$ ($I^2 \times t$ at t = 8.3 ms) |
| Peak offstate voltage | 600 V |
| Voltage drop at max. limiting continuous current | 1.5 V |
| Output circuit | 2-conductor, floating |
| Protective circuit | RC element |

Dimensions

| | |
|--------|---------|
| Width | 20.8 mm |
| Height | 33 mm |
| Depth | 66.5 mm |

Material specifications

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| | |
|-------|------------------|
| Color | green (RAL 6021) |
|-------|------------------|

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

Standards and regulations

| | |
|-----------------------|--------------|
| Standards/regulations | DIN VDE 0110 |
|-----------------------|--------------|

Mounting

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

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Drawings

Diagram



- ① In rows with zero spacing
- ② stand-alone device

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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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