

# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay



2271439

<https://www.phoenixcontact.com/us/products/2271439>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Input solid-state relay, with protective circuit in input and output circuits, input: 120 V AC, output: 8 - 48 V DC/100 mA

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2271439                        |
| Packing unit                         | 10 pc                          |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | DK61FY                         |
| GTIN                                 | 4017918054298                  |
| Weight per piece (including packing) | 13.54 g                        |
| Weight per piece (excluding packing) | 13.54 g                        |
| Country of origin                    | DE                             |

# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay



2271439

<https://www.phoenixcontact.com/us/products/2271439>

## 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 (50 Hz, 1 min., input/output) |
|-----------------------------|--------------------------------------|

### Input data

|  |                        |
|--|------------------------|
| Nominal input voltage $U_N$                          | 120 V AC               |
| Input voltage range in reference to $U_N$            | 0.9 ... 1.1            |
| Input voltage range                                  | 108 V AC ... 132 V AC  |
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.4$             |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$             |
| Typical input current at $U_N$                       | 2.2 mA                 |
| Protective circuit                                   | RC element; RC element |
| Transmission frequency                               | 3 Hz                   |

### Output data

|  |  |
|--|--|
| Design of digital output                         | electronic   |
| Output voltage range                             | 8 V DC ... 48 V DC                                     |
| Limiting continuous current                      | 100 mA   |
| Voltage drop at max. limiting continuous current | 1 V  |
| Output circuit                                   | 2-conductor, floating                                  |
| Protective circuit                               | Reverse polarity protection; Polarity protection diode |

### Dimensions

|                     |       |
|---------------------|-------|
| Dimensional drawing |       |
| Width               | 13 mm |
| Height              | 29 mm |
| Depth               | 25 mm |

### Environmental and real-life conditions

#### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -20 °C ... 50 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay



2271439

<https://www.phoenixcontact.com/us/products/2271439>

## Standards and regulations

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

## Mounting

|                   |   |
|-------------------|---|
| Assembly note     | can be aligned with spacing $\geq 2$ mm |
| Mounting position | any                                     |

# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay

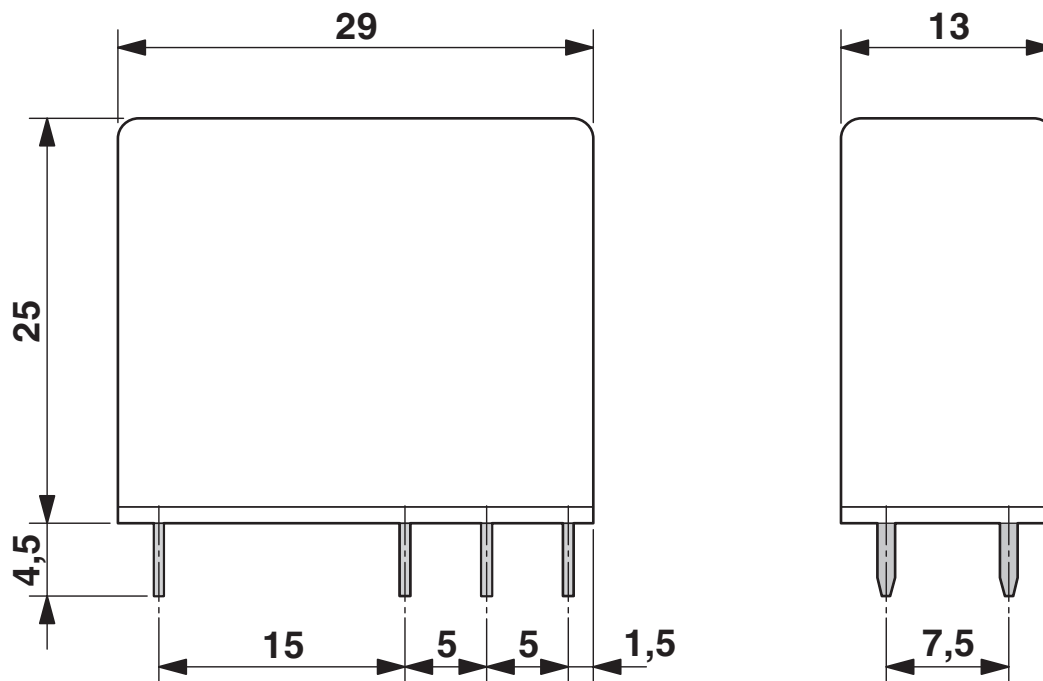


2271439

<https://www.phoenixcontact.com/us/products/2271439>

## Drawings

Dimensional drawing



# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay

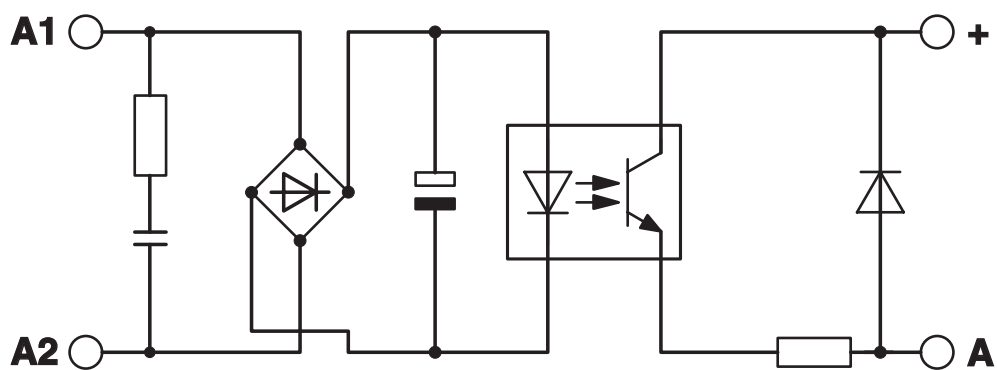
2271439

<https://www.phoenixcontact.com/us/products/2271439>

Schematic diagram



Circuit diagram



# SIM-EI-120AC/48DC/100/RC - Miniature solid-state relay



2271439

<https://www.phoenixcontact.com/us/products/2271439>

## 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% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)