

# REL-IR4/120AC/4X21/EX - Single relay



2909744

<https://www.phoenixcontact.com/us/products/2909744>

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Pluggable industrial relay, RT III sealed with power contacts, 4x changeover contacts, mechanical switch position indicator, polarity: non-polarized, input voltage: 120 V AC, in connection with RIF-2.../EX bases approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2909744             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C460                |
| Product key                          | CK6193              |
| Catalog page                         | Page 345 (C-5-2019) |
| GTIN                                 | 4055626379937       |
| Weight per piece (including packing) | 34.8 g              |
| Weight per piece (excluding packing) | 34.8 g              |
| Customs tariff number                | 85364900            |
| Country of origin                    | PL                  |

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## Technical data

### Product properties

|                         |                                |
|-------------------------|--------------------------------|
| Product type            | Single relay                   |
| Operating mode          | 100% operating factor          |
| Mechanical service life | approx. $2 \times 10^7$ cycles |

### Insulation characteristics

|            |                  |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

### Insulation characteristics

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

### Electrical properties

|  |  |
|--|--|
| Service life electrical                              | see diagram  |
| Maximum power dissipation for nominal condition      | 1.56 W   |
| Test voltage (Winding/contact)                       | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)                     |
| Test voltage (Changeover contact/changeover contact) | 2 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact) |
| Rated insulation voltage                             | 250 V AC   |
| Rated surge voltage                                  | 2.5 kV   |

### Input data

#### Coil side

|   |  |
|---|--|
| Nominal input voltage $U_N$               | 120 V AC                                     |
| Input voltage range                       | 93.6 V AC ... 165.6 V AC                     |
| Input voltage range in reference to $U_N$ | see diagram                                  |
| Mains frequency                           | 50/60 Hz                                     |
| Drive and function                        | monostable                                   |
| Drive (polarity)                          | non-polarized                                |
| Typical input current at $U_N$            | 13 mA  |
| Typical response time                     | 5 ms ... 15 ms (depending on phase relation) |
| Typical release time range                | 5 ms ... 20 ms (depending on phase relation) |
| Status display                            | Yellow LED                                   |

### Output data

#### Switching

|                           |                       |
|---------------------------|-----------------------|
| Contact switching type    | 4 changeover contacts |
| Type of switch contact    | Single contact        |
| Contact material          | AgNi                  |
| Maximum switching voltage | 250 V AC/DC           |
| Minimum switching voltage | 5 V (At 24 mA)        |

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|                                       |                            |
|---------------------------------------|----------------------------|
| Limiting continuous current           | 6 A                        |
| Maximum inrush current                | 16 A (20 ms, N/O contacts) |
| Min. switching current                | 5 mA (at 24 V)             |
| Interrupting rating (ohmic load) max. | 144 W (at 24 V DC)         |
|                                       | 124 W (at 48 V DC)         |
|                                       | 108 W (at 60 V DC)         |
|                                       | 52 W (at 110 V DC)         |
|                                       | 48 W (at 220 V DC)         |
|                                       | 1500 VA (for 250 V AC)     |
| Switching capacity min.               | 0.12 W                     |
| Switching capacity                    | 2 A (at 24 V, DC13)        |
|                                       | 0.22 A (at 120 V, DC13)    |
|                                       | 0.11 A (at 250 V, DC13)    |
|                                       | 1.5 A (at 24 V, AC15)      |
|                                       | 1.5 A (at 120 V, AC15)     |
|                                       | 1 A (at 240 V, AC15)       |
| Motor load according to UL 508        | 1/3 HP, 240 V AC           |

## Connection data

|                   |                    |
|-------------------|--------------------|
| Connection method | Plug-in connection |
|-------------------|--------------------|

## Dimensions

|        |         |
|--------|---------|
| Width  | 21.2 mm |
| Height | 27.5 mm |
| Depth  | 35.6 mm |

## Environmental and real-life conditions

### Ambient conditions

|   |                  |
|---|------------------|
| Degree of protection                    | RT III           |
| Ambient temperature (operation)         | -40 °C ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

### Corrosive gas test

|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

## Standards and regulations

|                       |           |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
|                       | IEC 61810 |

## Mounting

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

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

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## Environmental product compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

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