

# REL-PR3-125DC/3X21 - Single relay



2909056

<https://www.phoenixcontact.com/gb/products/2909056>

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Plug-in high-power relay with power contacts, 3 changeover contacts, coil voltage: 125 V DC



## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2909056       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 50 pc         |
| Sales key                            | CK6193        |
| Product key                          | CK6193        |
| GTIN                                 | 4055626358796 |
| Weight per piece (including packing) | 84.2 g        |
| Weight per piece (excluding packing) | 84.2 g        |
| Customs tariff number                | 85364900      |
| Country of origin                    | PL            |

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## Technical data

### Notes

|         |                                                                                                            |
|---------|------------------------------------------------------------------------------------------------------------|
| General | The outputs are not suitable for switching different outer conductors.                                     |
| General | Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed. |

### Product properties

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

### Insulation characteristics

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

### Insulation characteristics

|                      |                  |
|----------------------|------------------|
| Insulation           | Basic insulation |
| Overvoltage category | III              |
| Pollution degree     | 3                |

### Electrical properties

|                                                      |                                                                              |
|------------------------------------------------------|------------------------------------------------------------------------------|
| Service life electrical                              | see diagram                                                                  |
| Maximum power dissipation for nominal condition      | 1.34 W                                                                       |
| Test voltage (Winding/contact)                       | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)                       |
| Test voltage (Changeover contact/changeover contact) | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact) |
| Rated insulation voltage                             | 250 V AC                                                                     |
| Rated surge voltage                                  | 4 kV                                                                         |

### Input data

#### Coil side

|                                   |                                          |
|-----------------------------------|------------------------------------------|
| Nominal input voltage $U_N$       | 125 V DC                                 |
| Input voltage range               | 106.25 V DC ... 137.5 V DC (see diagram) |
| Drive and function                | monostable                               |
| Drive (polarity)                  | non-polarized                            |
| Typical input current at $U_N$    | 11 mA                                    |
| Input power dissipation for $U_N$ | 1.38 W                                   |
| Typical response time             | 20 ms                                    |
| Typical release time              | 15 ms                                    |

### Output data

#### Switching

|                        |                       |
|------------------------|-----------------------|
| Contact switching type | 3 changeover contacts |
|------------------------|-----------------------|

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|                                       |                                                |
|---------------------------------------|------------------------------------------------|
| Type of switch contact                | Single contact                                 |
| Contact material                      | AgNi                                           |
| Maximum switching voltage             | 440 V AC                                       |
|                                       | 250 V DC                                       |
| Minimum switching voltage             | 10 V (At 24 mA)                                |
| Limiting continuous current           | 16 A                                           |
| Maximum inrush current                | 50 A (20 ms, N/O contacts)                     |
| Min. switching current                | 10 mA (at 24 V)                                |
| Interrupting rating (ohmic load) max. | 384 W (at 24 V DC)                             |
|                                       | 124 W (at 48 V DC)                             |
|                                       | 108 W (at 60 V DC)                             |
|                                       | 52 W (at 110 V DC)                             |
|                                       | 70 W (at 220 V DC)                             |
|                                       | 4000 VA (for 250 V AC)                         |
|                                       | 4000 VA (at 440 V AC)                          |
| 3-phase motor load                    | 1500 W (at 400 V, AC3)                         |
| Motor load according to UL 508        | 1/3 HP, 120 V AC (single-phase AC motor)       |
|                                       | 1/2 HP, 240 V AC (single-phase AC motor)       |
|                                       | 1/2 HP, 240 V AC (three-phase induction motor) |

## Connection data

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

## Dimensions

|        |         |
|--------|---------|
| Width  | 38.6 mm |
| Height | 36.1 mm |
| Depth  | 45.5 mm |

## Environmental and real-life conditions

### Ambient conditions

|                                              |                                |
|----------------------------------------------|--------------------------------|
| Degree of protection                         | RT I                           |
| Degree of protection (Installation location) | ≥ IP54 (Installation location) |
| Ambient temperature (operation)              | -40 °C ... 70 °C               |
| Ambient temperature (storage/transport)      | -40 °C ... 85 °C               |
| Altitude                                     | ≤ 2000 m                       |

## Approvals

### Corrosive gas test

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

## Standards and regulations

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

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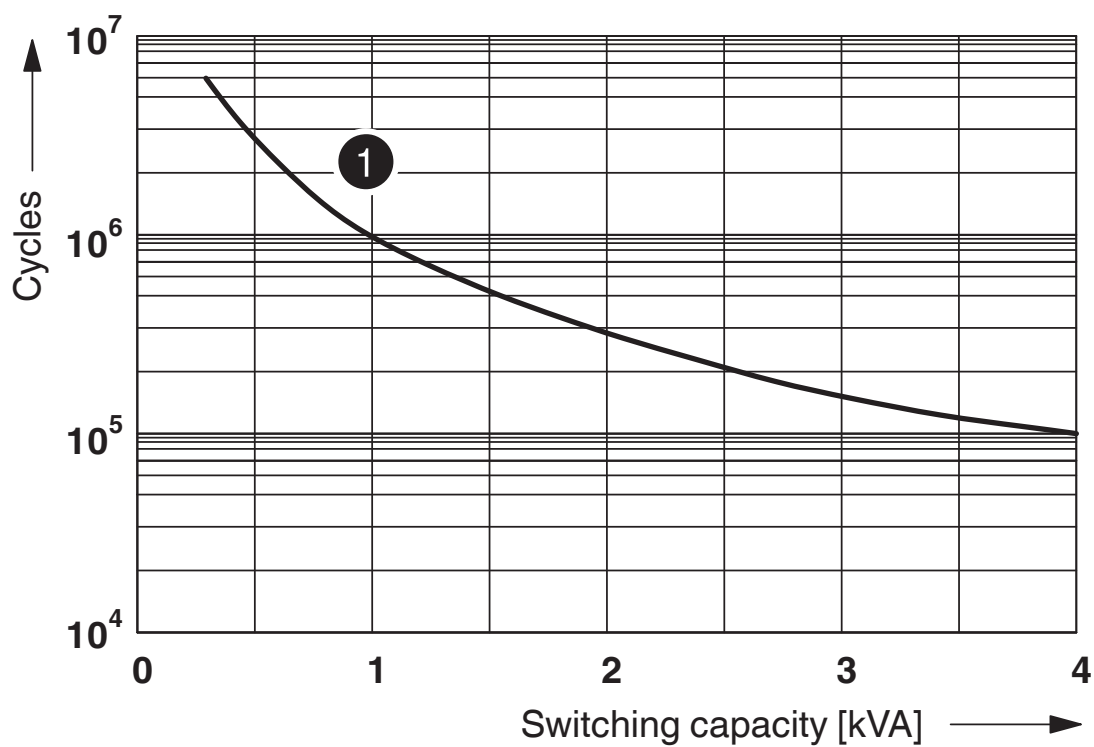
<https://www.phoenixcontact.com/gb/products/2909056>

## Mounting

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

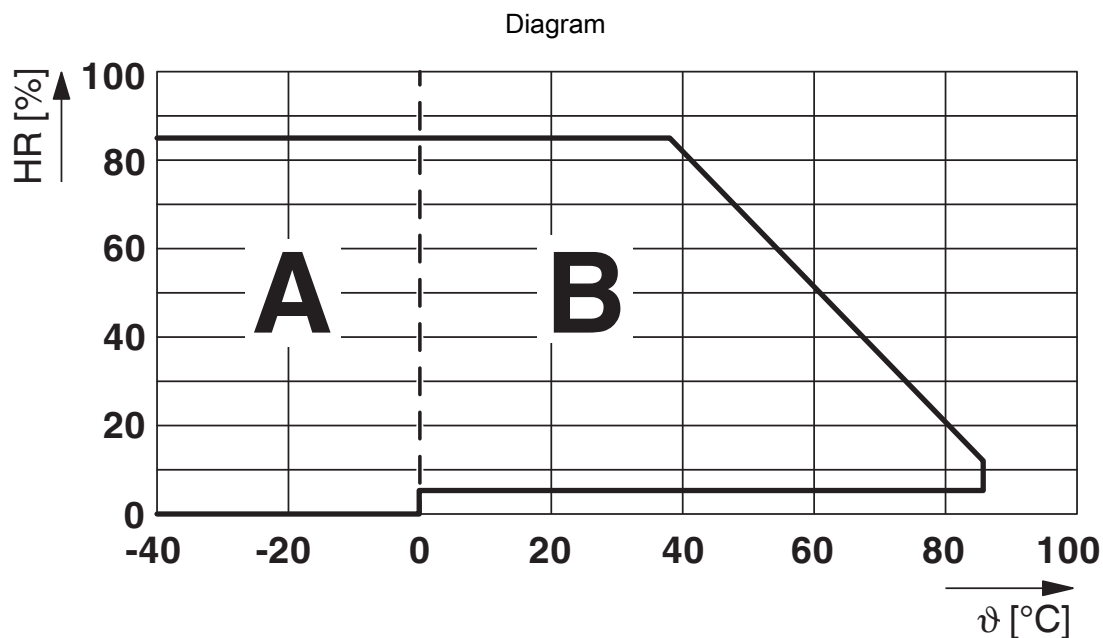
## Drawings

Diagram



① 250 V AC, Ohmic load

Electrical service life



Permissible humidity for operation and storage.

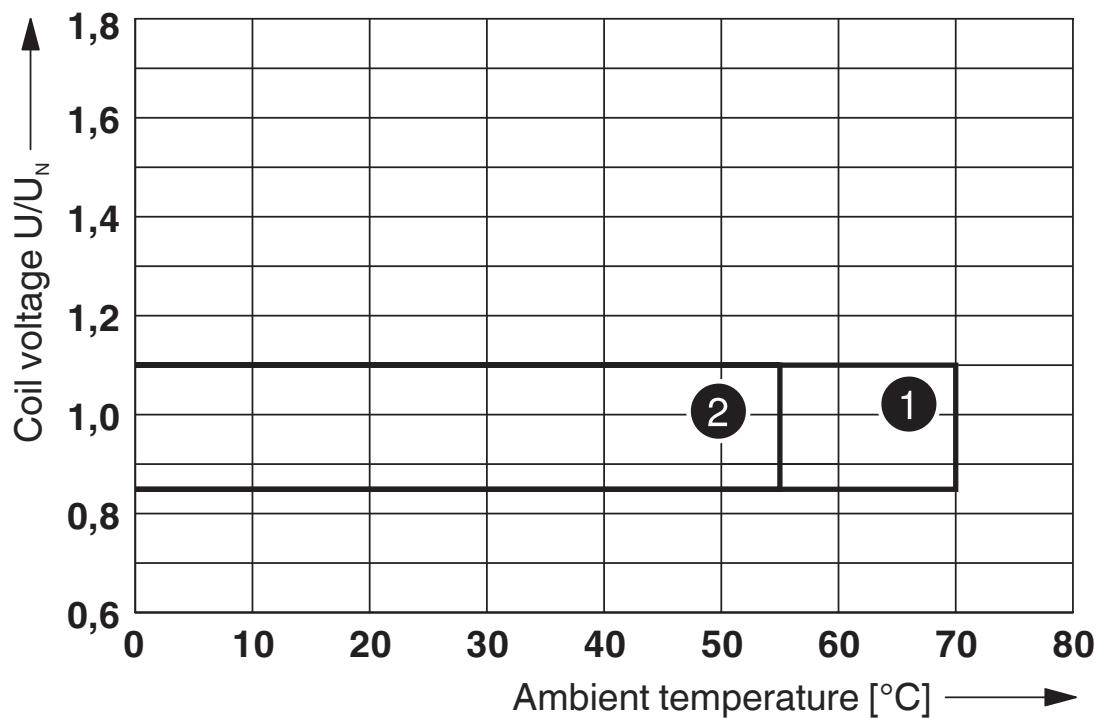
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

Diagram

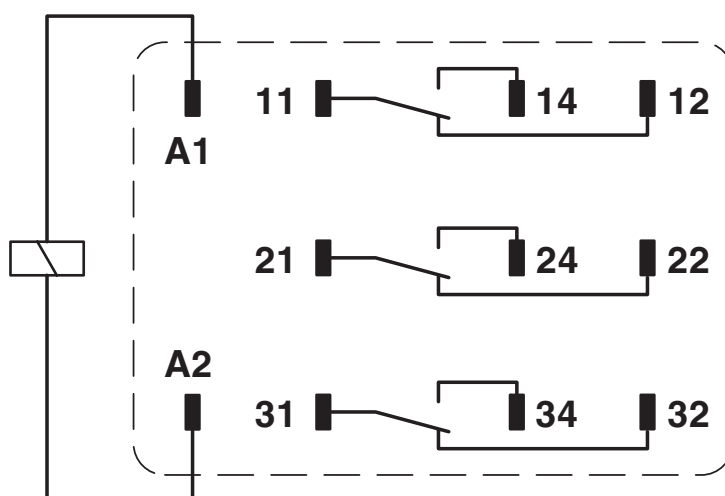


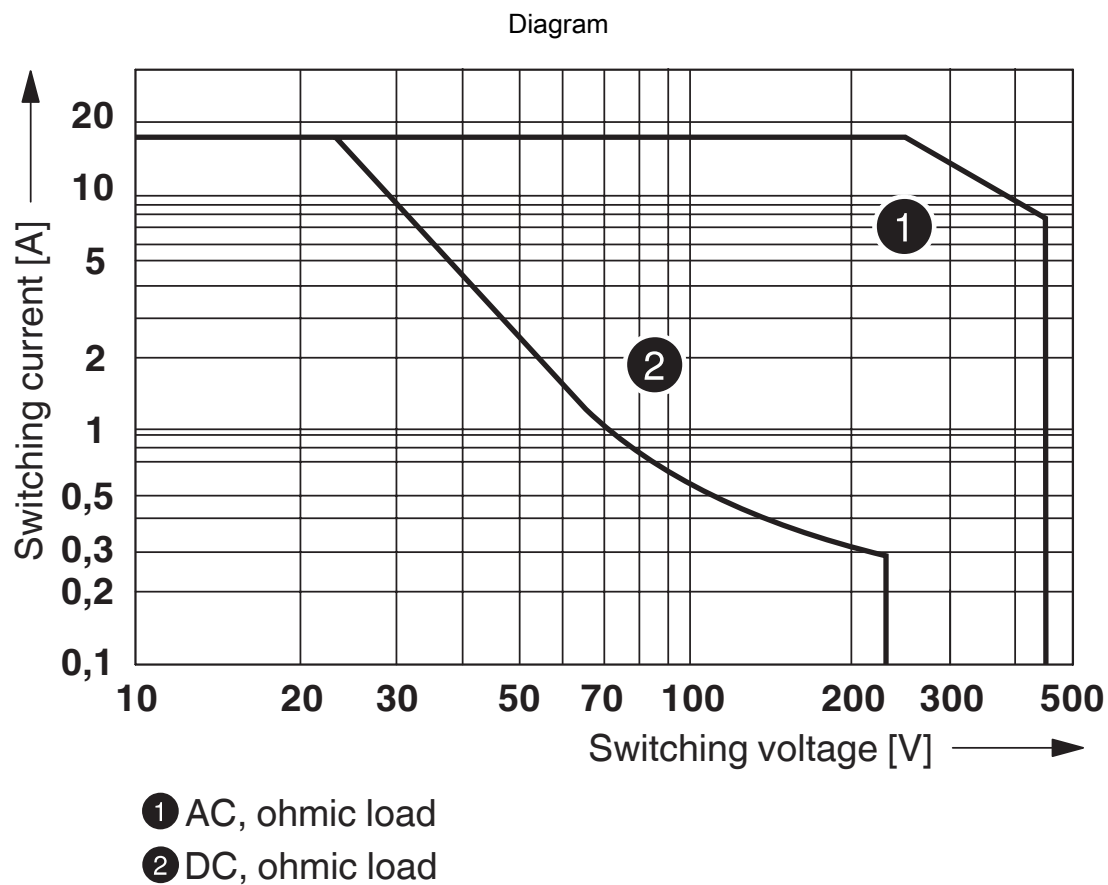
① DC coils

② AC coils

Operating voltage range

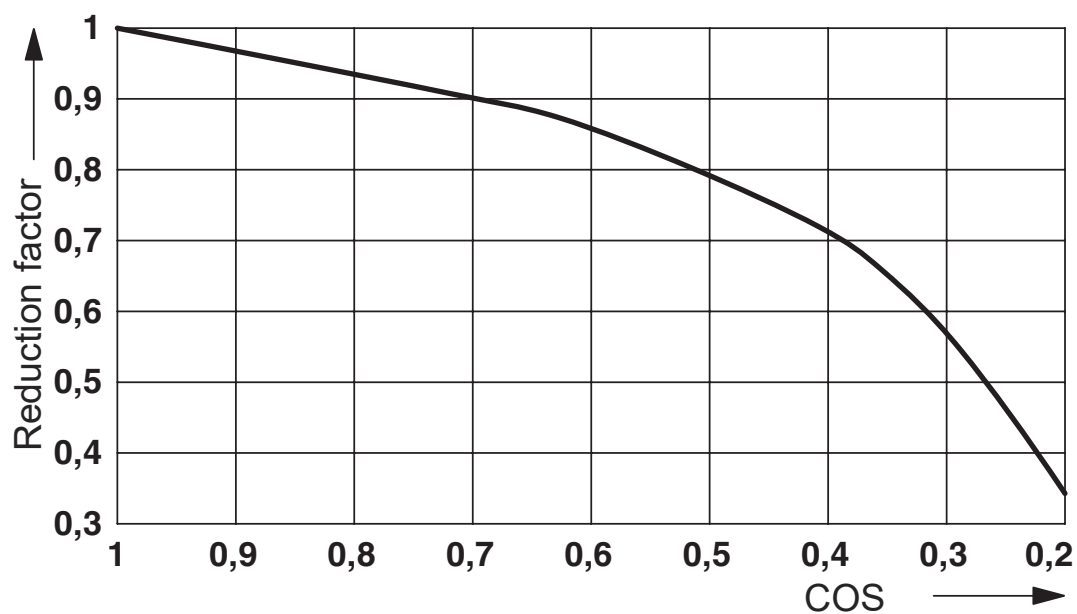
Circuit diagram





Interrupting rating

Diagram



Service life reduction factor

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2909056>



**CSA**  
Approval ID: 256725



**cUL Recognized**  
Approval ID: FILE E 172140



**UL Recognized**  
Approval ID: FILE E 172140



**EAC**  
Approval ID: TR\_TS\_D\_00573\_c



**EAC**  
Approval ID: RU\*C-DE.\*08.B.00010

**cULus Recognized**

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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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## Mandatory accessories

### RIF-4-BPT/3X21 - Relay base

2900961

<https://www.phoenixcontact.com/gb/products/2900961>



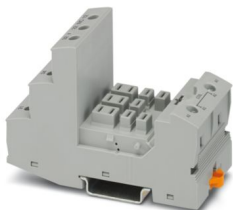
Relay base RIF-4..., for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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### RIF-4-BSC/3X21 - Relay base

2900960

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RIF-4... relay base, for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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