Installation Relays
Z-R 16A
Installation Relays Series Z-R 16A

- Switching and controlling of circuits up to 16 A, in accordance with EN 61095
- Hum free thanks to an innovative print-relay platform
- Manual operation for test purposes
- Low power loss
- Display of the operating status via LED

Functions & Features

The new Z-R 16 A installation relay is based on an innovative print-relay platform and is capable of switching single-phase loads up to 16 A. The device can be operated manually for test purposes and is suitable for many switching and control applications. The innovative print-relay platform stands out for its compact design and hum-free operation. It complies with EN 60947-4-1 and allows for a high degree of flexibility thanks to various contact configurations. The device has been designed to facilitate quick mounting on the DIN rail, with connection made easy thanks to generously proportioned terminals.

Possible applications

The Z-R 16 A installation relay offers a universal solution for control and switching tasks in private and commercial building installations. In particular, the areas of application include lighting systems, electric heating, ventilation as well as air-conditioning systems, fans, and heat pumps. Thanks to the hum-free operation, the Z-R 16 A series is especially suited for use in hotels, hospitals as well as offices.

Selection Information

<table>
<thead>
<tr>
<th>Control voltage</th>
<th>Function</th>
<th>Type designation</th>
<th>Article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>230-240 V 50/60 Hz</td>
<td>1NO</td>
<td>Z-R230/16-10</td>
<td>ICS-R16A230B100</td>
</tr>
<tr>
<td>230-240 V 50/60 Hz</td>
<td>2NO</td>
<td>Z-R230/16-20</td>
<td>ICS-R16A230B200</td>
</tr>
<tr>
<td>230-240 V 50/60 Hz</td>
<td>1NC</td>
<td>Z-R230/16-01</td>
<td>ICS-R16A230B010</td>
</tr>
<tr>
<td>230-240 V 50/60 Hz</td>
<td>1NC+1NC</td>
<td>Z-R230/16-11</td>
<td>ICS-R16A230B110</td>
</tr>
<tr>
<td>24 V 50/60 Hz</td>
<td>1NO</td>
<td>Z-R24/16-10</td>
<td>ICS-R16A024B100</td>
</tr>
<tr>
<td>24 V 50/60 Hz</td>
<td>2NO</td>
<td>Z-R24/16-20</td>
<td>ICS-R16A024B200</td>
</tr>
<tr>
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<td>ICS-R16A024B110</td>
</tr>
<tr>
<td>24 V DC</td>
<td>1NO</td>
<td>Z-R23/16-10</td>
<td>ICS-R16D024B100</td>
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</table>
### Technical data

#### General

In accordance with IEC/EN 60947-4-1

- **Rated voltage (1p): 240 V**
- **Rated current AC1** $I_e$ 16 A AC1
- **Rated operational power** $P_e$ 3.8 kW
- **Rated peak withstand voltage** $U_{imp}$ 2.5 kV (1.2/50 μs)

#### Control circuit

- **Rated control feed voltage** $U_s$
  - 24, 230, 240 V AC
  - 24 V DC
- **Rated frequency** 50, 60 Hz
- **Funktionsbereich** 0.85-1.1 x $U_s$
- **Maximum power of coils Retaining**
  - 24, 230, 240 V AC: 0.75 W per pole
  - 24 V DC: 0.4 W per pole
- **Operating noise** no humming

#### Load circuit

- **Rated operational voltage** $U_e$
  - 240 V
- **Rated frequency** 50, 60 Hz
- **Rated insulation voltage** $U_i$
  - 240 V
- **Conventional thermal current** $I_{th}$
  - 16 A
- **Rated operational current** $I_e$
  - 16 A
- **Rated constant current** $I_u$
  - 6 A
- **Rated current DC**
  - 24 V $I_e$ 16 A
  - 48 V $I_e$ 1.2 A
  - 120 V $I_e$ 0.22 A
  - 250 V $I_e$ 0.1 A

#### Utilization categories

**AC-1**

- **Rated operational voltage** $U_e$
  - 240 V AC
- **Rated operational current** $I_e$
  - 16 A AC
- **Rated operational power** 3072 W ($\cos \varphi = 0.8$)

**AC-3**

- **Rated operational voltage** $U_e$
  - 240 V AC
- **Rated operational current** $I_e$
  - 3 A AC
- **Rated operational power** 324 W ($\cos \varphi = 0.45$)

**AC-5a**

- **Rated operational voltage** $U_e$
  - 240 V AC
- **Rated operational current** $I_e$
  - 5 A AC
- **Rated operational power** 540 W ($\cos \varphi = 0.45$)
- **Make-/break-current** $I_c$
  - 15 A AC

**AC-5b**

- **Rated operational voltage** $U_e$
  - 240 V AC
- **Rated operational current** $I_e$
  - 3 A AC
- **Rated operational power** 720 W
- **Make-/break-current** $I_c$
  - 4.5 A AC

**AC-7a**

- **Rated operational voltage** $U_e$
  - 240 V AC
- **Rated operational current** $I_e$
  - 10 A AC
- **Rated operational power** 1920 W ($\cos \varphi = 0.8$)
- **Make-/break-current** $I_c$
  - 24 A AC
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