1 Phase electronic contactor (RC 11 Heatingelement)

- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 15/30/50/63A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 22.5, 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

Item selection and technical specifications

<table>
<thead>
<tr>
<th>Load AC-1/51 Heating-element</th>
<th>Control voltage</th>
<th>Item number by 12-240VAC 50/60Hz Line Voltage</th>
<th>Load in kW by 230V</th>
<th>EAN Nr. 5705 609</th>
<th>Item number by 24-480VAC 50/60Hz Line Voltage</th>
<th>Load in kW by 400V</th>
<th>EAN Nr. 5705 609</th>
<th>Module-width</th>
</tr>
</thead>
<tbody>
<tr>
<td>10A</td>
<td>5-24 VDC</td>
<td>RC 11 DD 2310</td>
<td>2.3 kW</td>
<td>002 152</td>
<td>Max. 3.5 kW</td>
<td>Max. 6.0 kW</td>
<td>002 206</td>
<td>W = 22.5 mm</td>
</tr>
<tr>
<td>15A</td>
<td>5-24 VDC</td>
<td>RC 11 DD 2315</td>
<td>Max. 3.5 kW</td>
<td>002 077</td>
<td>RC 11 DD 4015</td>
<td>RC 11 DA 4015</td>
<td>002 114</td>
<td>W = 22.5mm</td>
</tr>
<tr>
<td>24-230 VAC/DC</td>
<td>RC 11 DA 2315</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30A</td>
<td>5-24 VDC</td>
<td>RC 11 DD 2330</td>
<td>Max. 6.9 kW</td>
<td>002 084</td>
<td>RC 11 DD 4030</td>
<td>RC 11 DA 4030</td>
<td>002 121</td>
<td>W = 45mm</td>
</tr>
<tr>
<td>24-230 VAC/DC</td>
<td>RC 11 DA 2330</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50A</td>
<td>5-24 VDC</td>
<td>RC 11 DD 2350</td>
<td>Max. 11.5 kW</td>
<td>002 091</td>
<td>RC 11 DD 4050</td>
<td>RC 11 DA 4050</td>
<td>002 138</td>
<td>W = 90mm</td>
</tr>
<tr>
<td>24-230 VAC/DC</td>
<td>RC 11 DA 2350</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63A</td>
<td>5-24 VDC</td>
<td>RC 11 DD 2363</td>
<td>Max. 14.5 kW</td>
<td>002 107</td>
<td>RC 11 DD 4063</td>
<td>RC 11 DA 4063</td>
<td>002 145</td>
<td>W = 90mm</td>
</tr>
<tr>
<td>24-230 VAC/DC</td>
<td>RC 11 DA 2363</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Output load specification

Leakage current 1mA Amax. Min. operational current 10mA
Duty cycle 100%

Control terminal specifications

<table>
<thead>
<tr>
<th>RC 11 DD XXXX (DC)</th>
<th>Control voltage</th>
<th>Pick-up voltage max.</th>
<th>Drop-out voltage min.</th>
<th>Control current voltage RC 11 DD 2310</th>
<th>Control current voltage RC 11 DD xxxx</th>
<th>Max. control voltage</th>
<th>Response time max.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-24 VDC</td>
<td>4.25 VDC</td>
<td>1.5 VDC</td>
<td>8 mA@24 VDC</td>
<td>15 mA@24 VDC</td>
<td>32 VDC</td>
<td>1/2 cycle</td>
</tr>
<tr>
<td></td>
<td>24-230 VAC/DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24-230 VAC/DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thermal specification

Power dissipation for continuous operation PDmax 1.2 W/A
Power dissipation for intermittent operation PD 1.2 W/A x duty cycle
Cooling method Natural convection
Mounting Vertical +/-30°
Operating temperature range EN 60947-4-2 -5°C to 40°C
Max. operating temperature with current derating 60°C
Storage temperature EN 60947-4-2 -20°C to 80°C

Insulation specifications

Rated insulation voltage 660 Volt
Rated impulse withstand voltage 4 kVolt
Installation catagory III

Specifications are subject to change without notice
1 Phase electronic contactor (RC 11 Heatingelement)

**Wiring specifications**

<table>
<thead>
<tr>
<th>RC 11 DX XXXX</th>
<th>1/1-12: for UP62 or other wiring purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/L1</td>
<td>( ) 1 12</td>
</tr>
<tr>
<td></td>
<td>Control voltage A1-A2</td>
</tr>
<tr>
<td>2/T1</td>
<td>A2</td>
</tr>
</tbody>
</table>

**Thermal overload protection (see also page 44)**

Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62.

**Example 1**

The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

**Example 2**

The thermostat is connected in series with the control circuit of the main contactor.

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

**Note:**

A manual reset is necessary to restart this circuit.

**Short-circuit protection by fuses**

Two type of short-circuit protection can be used:

**Short-circuit protection by fuses**

Fuses short-circuit protection is divided into 2 levels **Type 1 or Type 2**

**Co-ordination Type 1:** Short-circuit protects the installation

- RC 11 DX 2310: Protection max. 16A gL/gG
- RC 11 DX XX15: Protection max. 50A gL/gG
- RC 11 DX XX30: Protection max. 50A gL/gG
- RC 11 DX XX50: Protection max. 50A gL/gG
- RC 11 DX XX63: Protection max. 80A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semiconductors inside the motor controller

- RC 11 DX 2310: Protection max. $I_t$ of the fuse 180 A²S
- RC 11 DX XX15: Protection max. $I_t$ of the fuse 610 A²S
- RC 11 DX XX30: Protection max. $I_t$ of the fuse 610 A²S
- RC 11 DX XX50: Protection max. $I_t$ of the fuse 1800 A²S
- RC 11 DX XX63: Protection max. $I_t$ of the fuse 6300 A²S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

**EMC**

This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard. This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

**Utilisation Categories (EN 60947-4-3)**

- **AC - 51** Switching of resistive loads
- **AC - 55a** Switching of electric discharge lamp controls
- **AC - 55b** Switching of incandescent lamps
- **AC - 56a** Switching of transformers

**Dimensions (see also page 44)**

<table>
<thead>
<tr>
<th>Type</th>
<th>H</th>
<th>D</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.5 mm module</td>
<td>94 mm</td>
<td>124.3 mm</td>
<td>22.5 mm</td>
</tr>
<tr>
<td>45 mm module</td>
<td>94 mm</td>
<td>124.3 mm</td>
<td>45 mm</td>
</tr>
<tr>
<td>90 mm module</td>
<td>94 mm</td>
<td>124.3 mm</td>
<td>90 mm</td>
</tr>
</tbody>
</table>

**Mounting and cable wiring information**

Mounting information see page 44 / Cable wiring see page 45