3 Phase electronic contactor (RC 33)

- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 10 / 20A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 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</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.</th>
<th>Item number by 24-480VAC 50/60Hz Line Voltage</th>
<th>Load in kW by 400V</th>
<th>EAN Nr.</th>
<th>Module-width</th>
</tr>
</thead>
<tbody>
<tr>
<td>10A</td>
<td>5-24 VDC</td>
<td>RC 33 DD 2310</td>
<td>Max. 4.0 kW</td>
<td>002 367</td>
<td>RC 33 DD 4010</td>
<td>Max. 6.9 kW</td>
<td>002 381</td>
<td>W = 45mm</td>
</tr>
<tr>
<td></td>
<td>24-230 VAC/DC</td>
<td>RC 33 DA 2310</td>
<td></td>
<td>002 329</td>
<td>RC 33 DA 4010</td>
<td></td>
<td>002 343</td>
<td>W = 45mm</td>
</tr>
<tr>
<td>20A</td>
<td>5-24 VDC</td>
<td>RC 33 DD 2320</td>
<td>Max. 8.0 kW</td>
<td>002 374</td>
<td>RC 33 DD 4020</td>
<td>Max. 13.9 kW</td>
<td>002 398</td>
<td>W = 90mm</td>
</tr>
<tr>
<td></td>
<td>24-230 VAC/DC</td>
<td>RC 33 DA 2320</td>
<td></td>
<td>002 336</td>
<td>RC 33 DA 4020</td>
<td></td>
<td>002 350</td>
<td>W = 90mm</td>
</tr>
</tbody>
</table>

Output load specification

- Leakage current: 1mA ACmax.
- Duty cycle: 100%
- Min. operational current: 10mA
- Duty cycle: 100%
- Max. control voltage: 5-24 VDC
- Control voltage: 24-230 VAC/DC
- Max. control voltage: 4.25 VDC
- Control voltage: 20.4 VAC/DC
- Max. control voltage: 1.5 VDC
- Control voltage: 7.2 VAC/DC
- Max. control voltage: 25 mA@24 VDC
- Control current / power max.: 8mA / 2.5VA@24 VDC
- Max. control voltage: 32 VDC
- Max. control voltage: 253 VAC/DC
- Response time max. (ON/OFF): 1/2 cycle
- Response time max. (ON/OFF): 1 cycle

Thermal specification

- Power dissipation for continuous operation PDmax: 3.6 W/A
- Power dissipation for intermittent operation PD: 3.6 W/A x duty-cycle
- Cooling method: Natural convection
- Mounting: Vertical +/- 30°
- Operating temperature range EN 60947-4-2: 
  - -5°C to 40°C
  - 60°C
  - -20°C to 80°C
- Max. operating temperature with current derating: 60°C

Environmental

- Degree of protection: IP 20
- Pollution degree: 3

Specifications are subject to change without notice
### 3 Phase electronic contactor (RC 33 Heatingelement)

#### Wiring specifications

<table>
<thead>
<tr>
<th>RC 33 DX XXXX</th>
<th>11-12: for UP62 or other wiring purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/L1</td>
<td></td>
</tr>
<tr>
<td>2/L2</td>
<td></td>
</tr>
<tr>
<td>3/L3 (+)</td>
<td></td>
</tr>
<tr>
<td>a1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Control voltage: A1-A2

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

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.

**Note:** When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.

#### Short-circuit protection by fuses

Two type of short-circuit protection can be used:

**Short-circuit protection by fuses**

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

**Co-ordination Type 1:** Short-circuit protects the installation
- RC 3 DX X10 Protection max. 50A gLgG
- RC 3 DX X20 Protection max. 50A gLgG

**Co-ordination Type 2:** Short-circuit protects the installation and the semiconductors inside the motor controller
- RC 3 DX X10 Protection max. \( \frac{I_t}{t} \) of the fuse 610 A²S
- RC 3 DX X20 Protection max. \( \frac{I_t}{t} \) of the fuse 610 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 product 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>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