

# RAC20

**20 A, AC/DC control voltage, silent operation**  
**DIN rail mounting according to DIN 43 880**



**Type: RAC20-xxx/ ...V**

Hum-free installation contactor, 2 contacts, 2 NO, 1 NO-1 NC, 2 NC types available.  
 Manual actuating and locking

<b>Rated operational power</b>	<b>4 kW / 230 V AC-1, 0.6 A / 220 V DC-1</b>
<b>Recommended minimum contact load</b>	<b>50 mA / 24 V</b>

**Contacts**

Material	AgNi
Rated operational current	20 A
Max. inrush current (100ms)	50 A
Max. switching voltage	230 V
Max. AC load	AC-1, AC-7a 4 kW / 230 V
	AC-3 1.3 kW / 230 V (NO) 0.75 kW / 230 V (NC)
Max. DC load	24 V / 220 V DC-1 (Fig. 1) 480 W / 130 W

**Control input V<sub>n</sub> =**

	<b>UC 24 V</b>	<b>UC 36 V</b>	<b>UC 230 V</b>
Operating voltage range [V]	20.4 ... 26.4	30.6 ... 39.6	195 ... 253
Typ. pick up voltage [V]	17	25	160
Typ. release voltage [V]	7	11	70
Power consumption [W]	2.1	2.1	2.1
Inductive turn-off voltage	None	None	None
Surge immunity EN 6100-4-5	2 kV	2 kV	2 kV

**Insulation**

Rated insulation voltage	230 V
Rated impulse withstand voltage	4 kV
Min. clearance of open contact	3.6 mm

**General Specifications**

Ambient temperature storage	-30 ... 80 °C
operation, Spacer after 2 contactors side by side	-5 ... 55 °C
operation, Spacer after 3 contactors side by side	-5 ... 40 °C
Pick-up time	15 ... 45 ms
Release time	20 ... 50 ms
Mechanical life	≥ 3 x 10 <sup>6</sup> operations
AC voltage endurance at rated load AC-3, AC-7b	≥ 3 x 10 <sup>5</sup> operations
DC voltage endurance at rated load DC-1	10 <sup>5</sup> operations
Operating frequency at rated load DC-1	≤ 300 operations / h
Operating frequency at rated load AC-1	≤ 600 operations / h
Conductor cross section coil /contacts	Stranded wire 2.5 mm <sup>2</sup> / 6 mm <sup>2</sup>
Max. Screw torque coil /contacts	0.6 Nm / 1.2 Nm
Ingress protection degree	IP 20
Weight	140 g

**Standard types**

**UC (AC / DC) 50 / 60 Hz, 24, 36, 230**

<b>2NO</b>	<b>RAC20-200/UC ...V</b>
<b>1NO + 1NC</b>	<b>RAC20-110/UC ...V</b>
<b>2NC</b>	<b>RAC20-020/UC ...V</b>

"..." enter the voltage for full type designation

**Accessories**

Auxiliary contact bloc:	<b>RIC-AUX..</b>
Sealing cover:	<b>RIC-SEAL 20</b>
Spacer:	<b>RIC-DIST</b>

**Samples of lamp loads**

Samples of lamp loads	Number of lamps
Incandescent lamps 230 V / 100 W	20
Fluorescent lamps not corrected 230 V / 36 W	17
Fluorescent lamps electronic ballast units 36 W	10

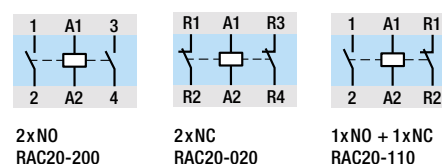
**Mounting information**

If multiple contactors are mounted side by side, spacers (RIC DIST) have to be inserted for the purpose of heat dissipation.

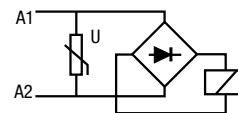
**Example:** Ambient temperature up to 40°C: 1 spacer after 3 RAC // 40...55°C: 1 spacer after 2 RAC.



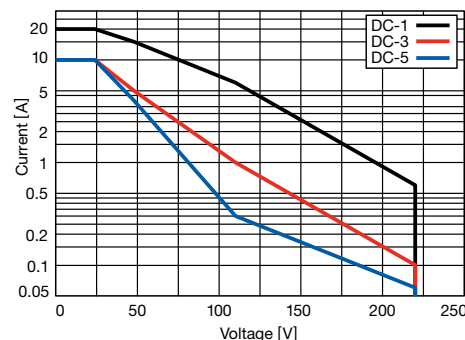
**Connection diagram**



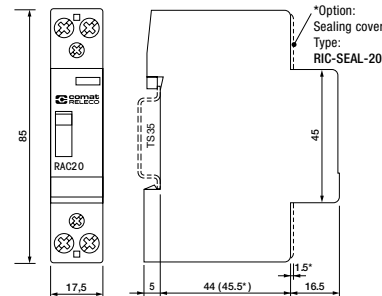
**Coil circuit**



**Fig. 1 DC load limit curve DC-1**



**Dimensions [mm]**



**Technical approvals, conformities**

**CE** **RoHS**  
 IEC/EN 60947-4-1, VDE 0660  
 IEC/EN 60947-5-1  
 IEC/EN 61095, VDE 0637