

RIC20

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



Type: RIC20-xxx/ ...V

Hum-free installation contactor, 2 contacts, 2 NO, 1 NO-1 NC, 2 NC types available

| | |
|---|--|
| Rated operational power | 4 kW / 230 V AC-1, 0.5 A / 220 V DC-1 |
| Recommended minimum contact load | 10 mA / 24 V |

Contacts

| | |
|---|---------------------------------|
| Material | AgNi |
| Rated operational current | 20 A |
| Max. inrush current (100ms) | 50 A |
| Max. switching voltage | 400 V |
| Max. AC load AC-1, AC-7a | 4 kW / 230 V |
| AC-3 | 1.3 kW /230 V (NO contact only) |
| Max. DC load 24 V / 220 V DC-1 (Fig. 1) | 480 W / 130 W |

Control input V_n =

| | UC 24 V | UC 36 V | UC 230 V |
|-----------------------------|----------------|----------------|-----------------|
| 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] | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 |
| 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 ⁶ operations |
| AC voltage endurance at rated load AC-3, AC-7b | ≥ 3 x 10 ⁵ operations |
| DC voltage endurance at rated load DC-1 | 10 ⁵ 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 ² / 6 mm ² |
| 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

| | |
|------------------|--------------------------|
| 2NO | RIC20-200/UC ...V |
| 1NO + 1NC | RIC20-110/UC ...V |
| 2NC | RIC20-020/UC ...V |

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

Accessories

| | |
|----------------|--------------------|
| Sealing cover: | RIC-SEAL 20 |
| Spacer: | RIC-DIST |

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 | 15 |

Find more information about RIC, RAC, RBC series on pages 117 – 127.

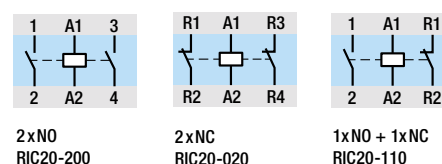
Mounting information

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 RIC // 40...55°C: 1 spacer after 2 RIC.



Connection diagram



Coil circuit

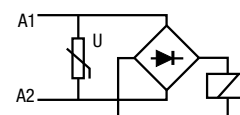
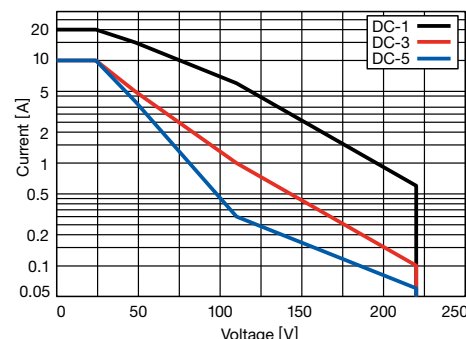
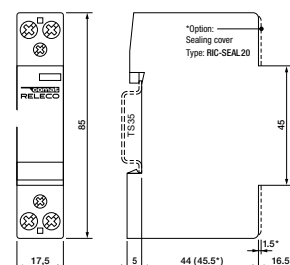


Fig. 1 DC load limit curve DC1



Dimensions [mm]



Technical approvals, conformities

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