



Residual current circuit breaker (RCCB), 40A, 2p, 30mA, type A

Part no. FRCMM-40/2/003-A-NA
Article no. 167114
Catalog No. PDC-TBD6153

Similar to illustration

Delivery program

| | | | |
|------------------------------|----------------|----|--|
| Basic function | | | Residual current circuit breakers |
| Number of poles | | | 2 pole |
| Application | | | Switchgear for export to North America (UL-listed) |
| Rated current | I_n | A | 40 |
| Rated short-circuit strength | I_{cn} | kA | 10 with back-up fuse |
| Rated fault current | $I_{\Delta N}$ | A | 0.03 |
| Type | | | Type A |
| Tripping | | A | non-delayed |
| Product range | | | FRCmM-NA |
| Sensitivity | | | Pulse-current sensitive |
| Impulse withstand current | | | Partly surge-proof 250 A |
| Contact sequence | | | |



Technical data

Electrical

| | | | |
|--|----------------------|-----------|----------------------------------|
| Types conform to | | | IEC/EN 61008 |
| Current test marks | | | As per inscription |
| Tripping | | A | non-delayed |
| Rated operating voltage | U_n | V AC | 240/415 |
| Rated frequency | f | Hz | 50/60 |
| Limit values of the operating voltage | | | |
| Test circuit | | V AC | 196 - 264 |
| Rated fault current | $I_{\Delta n}$ | mA | 30 |
| Sensitivity | | | Pulse-current sensitive |
| Rated insulation voltage | U_i | V | 440 |
| Rated impulse withstand voltage | U_{imp} | kV | 4 (1.2/50 μ s) |
| Rated short-circuit strength | I_{cn} | kA | 10 with back-up fuse |
| Impulse withstand current | | | 250 A (8/20 μ s) surge-proof |
| Max. admissible back-up fuse | | | |
| Short-circuit | gG/gL | A | 63 |
| Overload | gG/gL | A | 40 |
| Rated making and breaking capacity / Rated residual making and breaking capacity | $I_m / I_{\Delta m}$ | A | 500 |
| lifespan | | | |
| Electrical | | Operation | 2000 |
| Mechanical | | Operation | 5000 |

Electrical

| | | | |
|--------------------|--|--|--------------------|
| Types conform to | | | UL1053 |
| Current test marks | | | As per inscription |

| | | | |
|--|----------------------|--|--|
| Tripping | | | non-delayed |
| Rated operating voltage | U_n | | 480Y/277 V, 60 Hz |
| Limit values of the operating voltage | | | |
| Test circuit | | V AC | 196 - 305 |
| Pick-up current | | mA | 22 |
| Sensitivity | | | Pulse-current sensitive |
| Overtoltage-tested | | V | 530 |
| Rated impulse withstand voltage | U_{imp} | kV | 4 (1.2/50 μ s) |
| Rated short-circuit strength | I_{cn} | kA | 5 as per CSA |
| Max. admissible back-up fuse | | | |
| Short-circuit | | | 70 A class J fuse |
| Overload | | | The maximum operating current must not exceed the residual current circuit-breaker's rated operational current |
| Rated making and breaking capacity / Rated residual making and breaking capacity | $I_m / I_{\Delta m}$ | A | 500 |
| lifespan | | | |
| Electrical | | Operations  | 2000 |
| Mechanical | | Operations  | 5000 |

Mechanical

| | | | |
|--|--|-----------------|---|
| Standard front dimension | | mm | 45 |
| Device height | | mm | 80 |
| Built-in width | | mm | 35 (2TE) |
| Mounting | | | Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 |
| Degree of Protection | | | IP20 switches IP 40 enclosed |
| Terminals top and bottom | | | Lift terminals |
| Terminal protection | | | Busbar tag shroud to BGV A3, ÖVE-EN 6 |
| Terminal cross-section | | | |
| Solid | | mm ² | 1.5 - 35 |
| Stranded | | mm ² | 2 x 16 |
| Terminal cross-section | | | M5 (with cross-recessed screw as defined in EN ISO 4757-Z2, Pozidriv PZ2) |
| Admissible ambient temperature range | | °C | -25 - +40 |
| Permissible storage and transport temperatures | | °C | -35 - +60 |
| Climatic proofing | | | according to IEC/EN 61008 |
| Humidity | | % | 5 - 95 |
| Pollution degree | | | 2 |
| Mounting position | | | As required |
| Contact position indicator | | | red / green |
| Trip indication | | | white / blue |

Design verification as per IEC/EN 61439

| | | | |
|--|------------|----|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 40 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 7.8 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 0 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 55 |
| | | | Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C |

Technical data ETIM 6.0

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecI@ss8.1-27-14-22-01 [AAB906011])

| | | |
|--|----|----------|
| Number of poles | | 2 |
| Nominal rated voltage | V | 277 |
| Nominal rated current | A | 40 |
| Rated fault current | A | 0.03 |
| Mounting method | | DIN rail |
| Leakage current type | | A |
| Selective protection | | No |
| Short-circuit breaking capacity (I _{cn}) | kA | 10 |
| Surge current capacity | kA | 0.25 |
| Frequency | | 50 Hz |
| Additional equipment possible | | Yes |
| Degree of protection (IP) | | IP20 |
| Construction size (in accordance with DIN 43880) | | 1 |
| Width in number of modular spacings | | 2 |
| Built-in depth | mm | 70.5 |
| Short-time delayed tripping | | No |

Dimensions

