# DATASHEET - DRCM-40/4/003-G/A+



**Digital residual current circuit-breaker, 40A, 4p, 30mA, type G/A**

| | |
|---|---|
| **Part no.** | **dRCM-40/4/003-G/A+** |
| **Catalog No.** | **120836** |
| **Alternate Catalog No.** | **DRCM-40-4-003-G-A** |
| **EL-Nummer (Norway)** | **0001654973** |

Powering Business Worldwide™

## Delivery program

| | | | |
|---|---|---|---|
| Basic function | | | Residual current circuit-breakers , digital |
| Number of poles | | | 4 pole |
| Application | | | Switchgear for residential and commercial applications |
| Rated current | $I_n$ | A | 40 |
| Rated short-circuit strength | $I_{cn}$ | kA | 10 |
| Rated fault current | $I_{\Delta N}$ | A | 0.03 |
| Type | | | Type G/A (ÖVE E 8601) |
| Tripping | | s… | Short time-delayed |
| Product range | | | dRCM |
| Sensitivity | | | AC and pulsating DC current sensitive |
| Impulse withstand current | | | Surge-proof, 3 kA |

## Technical data

### Electrical

| | | | |
|---|---|---|---|
| Current test marks | | | As per inscription |
| Standards | | | IEC/EN 61008 |
| Rated operational voltage | $U_e$ | V | |
| | $U_e$ | V AC | |
| Rated operating voltage | $U_e$ | V AC | 230/400 |
| Rated frequency | f | Hz | 50/60 |
| Limit values of the operating voltage | | | |
| Test circuit | | V AC | 184 - 440 |
| Comment for range of the test button | | | 3-phase application without N (400V AC Phase-Phase) not allowed |
| Rated fault currents | $I_{\Delta n}$ | mA | 30, 300 |
| Rated non-tripping current | IΔno | | 0.5 x I $\triangle_n$ |
| Sensitivity | | | AC and pulsating DC current sensitive |
| Rated insulation voltage | $U_i$ | V | 440 |
| Sensitivity | | | DC and pulsed current |
| Rated impulse withstand voltage | $U_{imp}$ | kV | 4 |
| Rated short-circuit strength | $I_{cn}$ | kA | 10 |
| Maximum max. as short-circuit protective device | | A gL | |
| Back-up fuse | | A gL | Short-circuit and overload:<br>63 A gG/GL |
| lifespan | | | |
| Electrical | Operations | | ≧ 4000 |
| Mechanical | Operations | | ≧ 20000 |

### References

| | | | |
|---|---|---|---|
| Auxiliary switch for subsequent installation | | | Z-HK 248432 |
| Tripping signal contact for subsequent installation | | | Z-NHK 248434 |
| Remote control and automatic switching device | | | Z-FW/LP 248296 |
| Compact enclosure | | | KLV-TC-4 276241 |
| Sealing cover set | | | Z-RC/AK-4MU 101062 |

### Mechanical

| | | | |
|---|---|---|---|
| Standard front dimension | | mm | 45 |
| Standard front dimension | | mm | 45 |
| Device height | | mm | 80 |

| | | | |
|---|---|---|---|
| Enclosure height | | mm | |
| Enclosure width | | mm | 80 |
| Built-in width | | mm | 70 (4TE) |
| Mounting | | | Quick attachment with 2 latch positions on top-hat rail IEC/EN 60715 |
| Degree of Protection | | | IP40, IP54 (with moisture-proof enclosure) |
| Terminals top and bottom | | | Twin-purpose terminals |
| Terminal protection | | | DGUV VS3, EN 50274 |
| Degree of protection | | | |
| Integrated | | | IP40 |
| Terminal cross-section | | | |
| Solid | | $mm^2$ | 1.5 - 35 |
| Stranded | | $mm^2$ | 2 x 16 |
| flexible | | $mm^2$ | 2 x 16 |
| Terminal cross-section | | | M5 (Pozidriv PZ2) |
| Thickness of busbar material | | mm | 0.8 - 2 |
| Admissible ambient temperature range | | °C | -25 … +40 |
| Permissible storage and transport temperatures | | °C | -35 - +60 |
| Climatic proofing | | | 25-55°C/90-95% relative humidity according to IEC 60068-2 |
| Thickness of busbar material | | mm | |
| Material thickness | | mm | 0.8 - 2 |

## 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 | 3.8 |
| 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 | 40 |
| | | | Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 10.9 Insulation properties | | | |
| 10.9.2 Power-frequency electric strength | | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |

| | | | |
|---|---|---|---|
| 10.11 Short-circuit rating | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

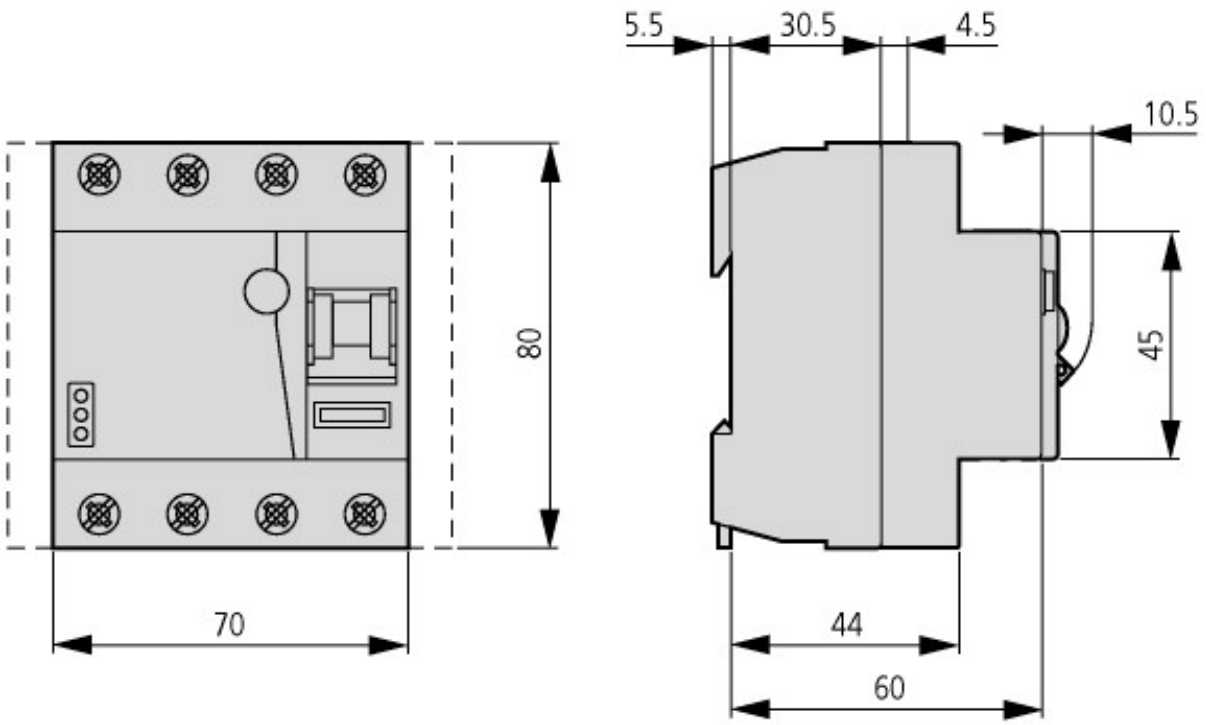
## Technical data ETIM 7.0

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) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

| | | | |
|---|---|---|---|
| Number of poles | | | 4 |
| Rated voltage | | V | 415 |
| Rated current | | A | 40 |
| Rated fault current | | mA | 30 |
| Rated insulation voltage Ui | | V | 440 |
| Rated impulse withstand voltage Uimp | | kV | 4 |
| Mounting method | | | DIN rail |
| Leakage current type | | | A |
| Selective protection | | | No |
| Short-time delayed tripping | | | Yes |
| Short-circuit breaking capacity (Icw) | | kA | 10 |
| Surge current capacity | | kA | 3 |
| Frequency | | | 50 Hz |
| Additional equipment possible | | | Yes |
| With interlocking device | | | Yes |
| Degree of protection (IP) | | | IP20 |
| Width in number of modular spacings | | | 4 |
| Built-in depth | | mm | 70.5 |
| Ambient temperature during operating | | °C | -25 - 40 |
| Pollution degree | | | 2 |
| Connectable conductor cross section multi-wired | | $mm^2$ | 1.5 - 16 |
| Connectable conductor cross section solid-core | | $mm^2$ | 1.5 - 35 |

## Dimensions





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