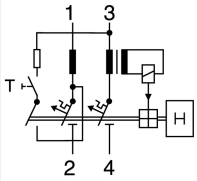
# RCD/MCB combination switch, 40A, 300mA, miniature circuit-br. type B trip characteristic, 2p, residual current circuit-br. trip characteristic: A

**Part no.** FRBM6-B40/2/03-A
**Article no.** 170850
**Catalog No.** FRBM6-B40/2/03-A

Similar to illustration

## Delivery program

| | | | |
|---|---|---|---|
| Basic function | | | Combined RCD/MCB devices |
| Number of poles | | | 2 pole |
| Tripping characteristic | | | B |
| Application | | | Switchgear for industrial and advanced commercial applications |
| Rated current | $I_n$ | A | 40 |
| Rated switching capacity according to IEC/EN 61009 | | kA | 6 |
| Rated fault current | $I_{\Delta N}$ | A | 0.3 |
| Tripping | | A | non-delayed |
| Product range | | | FRBm6 |
| Sensitivity | | | Pulse-current sensitive |
| Impulse withstand current | | | Partly surge-proof 250 A |
| Contact sequence | | |  |



## Technical data

### Electrical

| | | | |
|---|---|---|---|
| Sensitivity | | | Pulse-current sensitive |
| Rated current | $I_n$ | A | 40 |
| Tripping characteristic | | | B |

## 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 | 6.7 |
| 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 |
| | | | 0 |
| 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. |

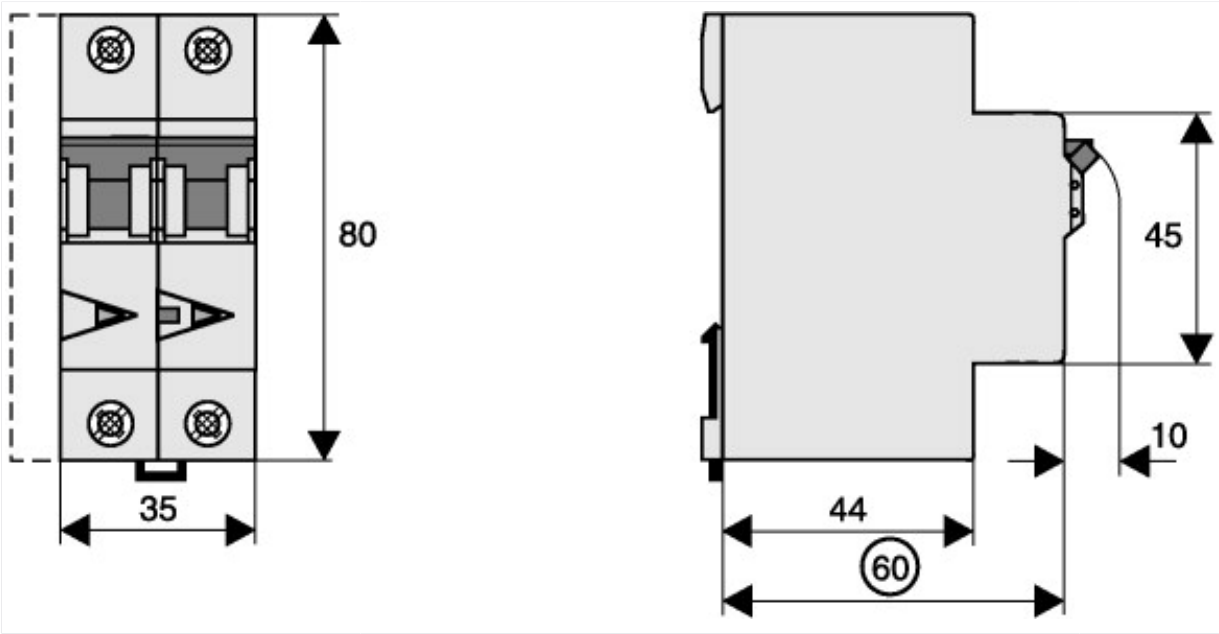
## Technical data ETIM 6.0

Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss8.1-27-14-22-07 [AFZ810012])

| | | | |
|---|---|---|---|
| Number of poles (total) | | | 2 |
| Number of protected poles | | | 2 |
| Nominal rated voltage | | V | 240 |
| Nominal rated current | | A | 40 |
| Rated fault current | | A | 0.3 |
| Leakage current type | | | A |
| Current limiting class | | | 3 |
| Rated short-circuit breaking capacity EN 60898 | | kA | 6 |
| Rated short-circuit breaking capacity IEC 60947-2 | | kA | 0 |
| Frequency | | | 50 Hz |
| Release characteristic | | | B |
| Concurrently switching N-neutral | | | No |
| Over voltage category | | | 3 |
| Pollution degree | | | 2 |
| Width in number of modular spacings | | | 2 |
| Built-in depth | | mm | 75.5 |
| Suitable for flush-mounted installation | | | No |
| Degree of protection (IP) | | | IP20 |
| Surge current capacity | | kA | 0.25 |
| Voltage type | | | AC |
| Antinuisance tripping version | | | No |

## Dimensions




## Additional product information (links)

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|---|---|
| Product overview (Web) | http://www.eaton.eu/Europe/Electrical/ProductsServices/CircuitProtection/DigitalCircuitBreakers/index.htm |