

RCD/MCB combination switch, 10A, 100mA, miniature circuit-br. type C trip characteristic, 2p, residual current circuit-br. trip characteristic: A



Part no. Article no. Catalog No. FRBDM-C10/2/01-G/A 168217 PDC-TBD6560

Similar to illustration

#### **Delivery program**

| Basic function                                     |                |    | Combined RCD/MCB devices                                       |
|--|----------------|----|--|
| Number of poles                                    |                |    | 2 pole   |
| Tripping characteristic                            |                |    | C  |
| Application  |                |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                      | I <sub>n</sub> | А  | 10   |
| Rated switching capacity according to IEC/EN 61009 |                | kA | 10   |
| Rated fault current                                | $I_{\Delta N}$ | А  | 0.1  |
| Tripping   |                | А  | Short time-delayed   |
| Product range                                      |                |    | FRBdM  |
| Sensitivity  |                |    | Pulse-current sensitive  |
| Impulse withstand current                          |                |    | Surge-proof, 3 kA  |
| Contact sequence                                   |                |    |  |

### **Technical data**

| Electrical              |                |   |                         |
|-------------------------|----------------|---|-------------------------|
| Sensitivity             |                |   | Pulse-current sensitive |
| Rated current           | I <sub>n</sub> | А | 10                      |
| Tripping characteristic |                |   | C                       |

## Design verification as per IEC/EN 61439

| Design vernication as per 120/214 01455   |                   |    |  |
|---|-------------------|----|--|
| Technical data for design verification  |                   |    |  |
| Rated operational current for specified heat dissipation  | In                | А  | 10   |
| Heat dissipation per pole, current-dependent  | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent   | P <sub>vid</sub>  | W  | 4  |
| Static heat dissipation, non-current-dependent  | P <sub>vs</sub>   | W  | 0  |
| Heat dissipation capacity   | P <sub>diss</sub> | 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<br>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.                         |

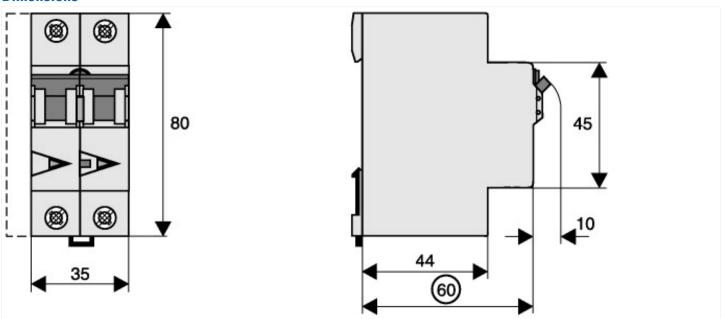
#### **Technical data ETIM 6.0**

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                             | А  | 10    |
| Rated fault current                               | А  | 0.1   |
| Leakage current type                              |    | A     |
| Current limiting class                            |    | 3     |
| Rated short-circuit breaking capacity EN 60898    | kA | 10    |
| Rated short-circuit breaking capacity IEC 60947-2 | kA | 0     |
| Frequency   |    | 50 Hz |
| Release characteristic                            |    | C     |
| Concurrently switching N-neutral                  |    | No    |
| Over voltage category                             |    | 3     |
| Pollution degree                                  |    | 2     |
| Width in number of modular spacings               |    | 2     |
| Built-in depth                                    | mm | 70    |
| Suitable for flush-mounted installation           |    | No    |
| Degree of protection (IP)                         |    | IP20  |
| Surge current capacity                            | kA | 3     |
| Voltage type                                      |    | AC    |
| Antinuisance tripping version                     |    | Yes   |

## **Dimensions**



# Additional product information (links)

Product overview (Web)

http://www.eaton.eu/Europe/Electrical/ProductsServices/CircuitProtection/DigitalCircuitBreakers/index.htm