

## Eaton 170912

Eaton Moeller series xEffect - FRBm6/M  
RCBO - residual-current circuit breaker with  
overcurrent protection. RCD/MCB, 13A,  
10mA, MCB trip type D, 1-phase+N, RCCB  
trip type: AC

|                                 |                                                                                                                        |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------|
|                                 |                                                                                                                        |
| <b>PRODUCT NAME</b>             | Eaton Moeller series<br>xEffect - FRBm6/M RCBO -<br>residual-current circuit<br>breaker with overcurrent<br>protection |
| <b>CATALOG NUMBER</b>           | 170912                                                                                                                 |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 80 mm                                                                                                                  |
| <b>PRODUCT HEIGHT</b>           | 75 mm                                                                                                                  |
| <b>PRODUCT WIDTH</b>            | 35 mm                                                                                                                  |
| <b>PRODUCT WEIGHT</b>           | 0.201 kg                                                                                                               |
| <b>COMPLIANCES</b>              | CE Marked<br>RoHS conform                                                                                              |
| <b>CERTIFICATIONS</b>           | CE<br>EN45545-2<br>IEC 61373                                                                                           |

|                                                           |                                  |
|-----------------------------------------------------------|----------------------------------|
|                                                           |                                  |
| <b>AMPERAGE RATING</b>                                    | 13 A                             |
| <b>VOLTAGE RATING</b>                                     | 240 V - 240 V                    |
| <b>SURGE CURRENT CAPACITY</b>                             | 0.25 kA                          |
| <b>VOLTAGE TYPE</b>                                       | AC                               |
| <b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>                | 2                                |
| <b>FEATURES</b>                                           | Concurrently switching N-neutral |
| <b>OPERATING AMBIENT TEMPERATURE - MAX</b>                | 40 °C                            |
| <b>OPERATING AMBIENT TEMPERATURE - MIN</b>                | -25 °C                           |
| <b>PRODUCT RANGE</b>                                      | FRBmM                            |
| <b>RATED CURRENT</b>                                      | 13 A                             |
| <b>RATED FAULT CURRENTS OF PRODUCT RANGE</b>              | 10, 30, 100, 300 MilliAmpere     |
| <b>RATED SWITCHING CAPACITY (IEC/EN 61009)</b>            | 10 kA                            |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>     | 0 W                              |
| <b>TRIPPING CHARACTERISTIC</b>                            | D                                |
| <b>BUILT-IN DEPTH</b>                                     | 75.5 mm                          |
| <b>CURRENT LIMITING CLASS</b>                             | 3                                |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)</b> | 15 kA                            |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                | 40 °C                            |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                | -25 °C                           |
| <b>FAULT CURRENT RATING</b>                               | 0.01 A                           |
| <b>HEAT DISSIPATION CAPACITY</b>                          | 0 W                              |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>       | 0 W                              |
| <b>NUMBER OF POLES (PROTECTED)</b>                        | 1                                |
| <b>NUMBER OF POLES (TOTAL)</b>                            | 2                                |
| <b>RATED OPERATIONAL</b>                                  | 240 V                            |

|                                                                       |  |
|-----------------------------------------------------------------------|--|
|                                                                       |  |
| <a href="#">xEffect FR RCCB FAZ%20MCB.pdf</a>                         |  |
| <a href="#">eaton-xeffect-frbm6-rcbo-catalog-ca003015en-en-us.pdf</a> |  |
| <a href="#">eaton-xeffect-frbm6m-dimensions.jpg</a>                   |  |
| <a href="#">eaton-xeffect-frbm6m-3d-drawing-007.jpg</a>               |  |
| <a href="#">eaton-xeffect-frbm6m-wiring-diagram.jpg</a>               |  |
| <a href="#">eaton-xeffect-frbm6m-characteristic-curve.jpg</a>         |  |

|                                                                |                                                             |
|----------------------------------------------------------------|-------------------------------------------------------------|
| <b>VOLTAGE (UE) - MAX</b>                                      |                                                             |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)</b>     | 15 kA                                                       |
| <b>RATED SWITCHING CAPACITY</b>                                | 10 kA                                                       |
| <b>BASIC FUNCTION</b>                                          | Combined RCD/MCB devices                                    |
| <b>MOUNTING METHOD</b>                                         | DIN rail                                                    |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                  | 4 kV                                                        |
| <b>DEGREE OF PROTECTION</b>                                    | IP20                                                        |
| <b>OPERATING AMBIENT TEMPERATURE HINT</b>                      | Keep in mind the derating at temperatures higher than 40 °C |
| <b>TRIPPING</b>                                                | Non-delayed                                                 |
| <b>OVERVOLTAGE CATEGORY</b>                                    | III                                                         |
| <b>POLLUTION DEGREE</b>                                        | 2                                                           |
| <b>IMPULSE WITHSTAND CURRENT</b>                               | Partly surge-proof, 250 A                                   |
| <b>LEAKAGE CURRENT TYPE</b>                                    | AC                                                          |
| <b>RELEASE CHARACTERISTIC</b>                                  | D                                                           |
| <b>SENSITIVITY TYPE</b>                                        | AC current sensitive                                        |
| <b>FREQUENCY RATING</b>                                        | 50 Hz                                                       |
| <b>RATED INSULATION VOLTAGE (UI)</b>                           | 500 V                                                       |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>  | 1 mm <sup>2</sup>                                           |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>  | 25 mm <sup>2</sup>                                          |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b> | 1 mm <sup>2</sup>                                           |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b> | 25 mm <sup>2</sup>                                          |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)</b>        | 10 kA                                                       |

|                                                                   |                                                                      |
|-------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>RATED SHORT-CIRCUIT<br/>BREAKING CAPACITY (EN<br/>61009-1)</b> | 10 kA                                                                |
| <b>NUMBER OF POLES</b>                                            | Single-pole + N                                                      |
| <b>DISCONNECTION<br/>CHARACTERISTIC</b>                           | Undelayed                                                            |
| <b>TYPE</b>                                                       | RCBO                                                                 |
| <b>APPLICATION</b>                                                | Switchgear for industrial<br>and advanced commercial<br>applications |

|                        |
|------------------------|
| <b>PROJECT NAME:</b>   |
| <b>PROJECT NUMBER:</b> |
| <b>PREPARED BY:</b>    |
| :                      |



Eaton House  
30 Pembroke Road  
Dublin 4,  
Eaton.com

© 2025

Follow us on social media to get the latest product and support information.

