

# Specifications



## Eaton 120661

Eaton Moeller series xPole - mRB4/6 RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 6A, 100mA, C-LS-Char, 3N pole, FI-Char: A

### General specifications

|                     |                                                                                                       |
|---------------------|-------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b> | Eaton Moeller series xPole - mRB6 RCBO - residual-current circuit breaker with overcurrent protection |
|---------------------|-------------------------------------------------------------------------------------------------------|

|                       |                  |
|-----------------------|------------------|
| <b>CATALOG NUMBER</b> | 120661           |
| <b>MODEL CODE</b>     | mRB6-6/3N/C/01-A |
| <b>EAN</b>            | 4015081184910    |

|                             |       |
|-----------------------------|-------|
| <b>PRODUCT LENGTH/DEPTH</b> | 80 mm |
|-----------------------------|-------|

|                       |         |
|-----------------------|---------|
| <b>PRODUCT HEIGHT</b> | 75.5 mm |
|-----------------------|---------|

|                      |       |
|----------------------|-------|
| <b>PRODUCT WIDTH</b> | 70 mm |
|----------------------|-------|

|                       |          |
|-----------------------|----------|
| <b>PRODUCT WEIGHT</b> | 0.446 kg |
|-----------------------|----------|

|                    |                           |
|--------------------|---------------------------|
| <b>COMPLIANCES</b> | CE Marked<br>RoHS conform |
|--------------------|---------------------------|

|                       |    |
|-----------------------|----|
| <b>CERTIFICATIONS</b> | CE |
|-----------------------|----|



Powering Business Worldwide

## Additional information

### CURRENT LIMITING CLASS

3

### FEATURES

Concurrently switching N-neutral

### STANDARDS

IEC/EN 61009

## Delivery programme

### APPLICATION

Switchgear for residential and commercial applications

### BASIC FUNCTION

Combined RCD/MCB devices

### FAULT CURRENT RATING

0.1 A

### NUMBER OF POLES

Three-pole + N

### NUMBER OF POLES (PROTECTED)

4

### NUMBER OF POLES (TOTAL)

4

### PRODUCT APPLICATION

Switchgear for industrial and advanced commercial applications

### PRODUCT RANGE

mRB6

### RATED CURRENT

6 A

### RATED CURRENT OF PRODUCT RANGE

6 - 25 Ampere

### RELEASE CHARACTERISTIC

C

### SENSITIVITY TYPE

Type A, pulse-current sensitive

### TRIPPING CHARACTERISTIC

C

### TYPE

RCBO

## Design verification to IEC/EN 61439

|                                                                                         |                                                                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>10.10 TEMPERATURE RISE</b>                                                           | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| <b>10.11 SHORT-CIRCUIT RATING</b>                                                       | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>                                              | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.13 MECHANICAL FUNCTION</b>                                                        | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                                                                                       |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | Meets the product standard's requirements.                                                                                       |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product standard's requirements.                                                                                       |
| <b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>                                          | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                                           | Meets the product standard's requirements.                                                                                       |
| <b>10.5 PROTECTION</b>                                                                  | Does not apply, since the                                                                                                        |

## Design verification to IEC/EN 61439 - technical data

|                                                                      |        |
|----------------------------------------------------------------------|--------|
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                           | 40 °C  |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                           | -25 °C |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>                 | 4.8 W  |
| <b>HEAT DISSIPATION CAPACITY</b>                                     | 0 W    |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>                  | 0 W    |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 6 A    |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>                | 0 W    |

|                                                                 |                                                                    |
|-----------------------------------------------------------------|--------------------------------------------------------------------|
| <b>AGAINST ELECTRIC SHOCK</b>                                   | entire switchgear needs to be evaluated.                           |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>   | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>        | Is the panel builder's responsibility.                             |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                 | Is the panel builder's responsibility.                             |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                 | Is the panel builder's responsibility.                             |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                         | Is the panel builder's responsibility.                             |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b> | Is the panel builder's responsibility.                             |

## Technical data - electrical

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| <b>BACK-UP FUSE</b>                                       | 100 Ampere gL             |
| <b>DISCONNECTION CHARACTERISTIC</b>                       | Undelayed                 |
| <b>FREQUENCY RATING</b>                                   | 50 Hz                     |
| <b>IMPULSE WITHSTAND CURRENT</b>                          | Partly surge-proof, 250 A |
| <b>LEAKAGE CURRENT TYPE</b>                               | A                         |
| <b>POLLUTION DEGREE</b>                                   | 2                         |
| <b>RATED FAULT CURRENTS OF PRODUCT RANGE</b>              | 30, 100, 300 MilliAmpere  |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>             | 4 kV                      |
| <b>RATED INSULATION VOLTAGE (UI)</b>                      | 500 V                     |
| <b>RATED NON-TRIPPING CURRENT</b>                         | 0.5 x IΔn                 |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>               | 400 V                     |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)</b> | 0 kA                      |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)</b> | 6 kA                      |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)</b>   | 6 kA                      |
| <b>RATED SWITCHING CAPACITY</b>                           | 6 kA                      |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>          | 6 kA                      |
| <b>RATED SWITCHING CAPACITY (IEC/EN 61009)</b>            | 6 kA                      |
| <b>SELECTIVITY CLASS</b>                                  | 3                         |
| <b>SURGE CURRENT CAPACITY</b>                             | 0.25 kA                   |
| <b>TRIPPING</b>                                           | Non-delayed               |
| <b>VOLTAGE RATING</b>                                     | 400 V                     |
| <b>VOLTAGE RATING AT AC</b>                               | 230 V / 400 V             |
| <b>VOLTAGE TYPE</b>                                       | AC                        |

## Technical data - mechanical

|                                                                |                                                                           |
|----------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>BUILT-IN DEPTH</b>                                          | 70 mm                                                                     |
| <b>CLIMATIC PROOFING</b>                                       | IEC 68-2: 25 °C - 55 °C at 90 % - 95 % humidity                           |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b> | 25 mm²                                                                    |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b> | 1 mm²                                                                     |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>  | 25 mm²                                                                    |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>  | 1 mm²                                                                     |
| <b>DEGREE OF PROTECTION</b>                                    | IP20                                                                      |
| <b>DEGREE OF PROTECTION (BUILT IN)</b>                         | IP40                                                                      |
| <b>DEVICE HEIGHT</b>                                           | 80 mm                                                                     |
| <b>FRAME</b>                                                   | 45 mm                                                                     |
| <b>MATERIAL THICKNESS</b>                                      | 2 mm                                                                      |
| <b>MOUNTING METHOD</b>                                         | DIN rail                                                                  |
| <b>MOUNTING STYLE</b>                                          | Tri-stable slide catch - enables removal from existing busbar combination |
| <b>SOLID TERMINAL CAPACITIES</b>                               | 1 - 25 Square Millimeter                                                  |
| <b>TERMINAL PROTECTION</b>                                     | Busbar tag shroud to VBG4                                                 |
| <b>TERMINALS (TOP AND BOTTOM)</b>                              | Twin-purpose                                                              |
| <b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>                     | 4                                                                         |

## Resources

|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| CHARACTERISTIC CURVE       | <a href="#">eaton-mcb-xpole-mrb4-6-characteristic-curve.eps</a>                                                                  |
|                            | <a href="#">eaton-xpole-mrb-characteristic-curve-1220dia-11.eps</a>                                                              |
| DECLARATIONS OF CONFORMITY | <a href="#">eaton-rcbo-residual-current-circuit-breaker-with-overcurrent-protection-declaration-of-conformity-eu250077en.pdf</a> |
| DRAWINGS                   | <a href="#">Dimensions xPole mRB4/mRB6 3N</a>                                                                                    |
|                            | <a href="#">eaton-mcb-xpole-mrb4-6-dimensions.eps</a>                                                                            |
|                            | <a href="#">eaton-xeffect-frbm6m-characteristic-curve-002.jpg</a>                                                                |
|                            | <a href="#">eaton-xeffect-frbm6m-wiring-diagram-002.jpg</a>                                                                      |
|                            | <a href="#">eaton-xeffect-frbm6m-dimensions-004.jpg</a>                                                                          |
| ECAD MODEL                 | <a href="#">3D Drawing xPole mRB4/mRB6 3N</a>                                                                                    |
|                            | <a href="#">ETN.mRB6-6 3N C 01-A.edz</a>                                                                                         |
| INSTALLATION INSTRUCTIONS  | <a href="#">eaton-mcb-rccb-rcbo-g9-il019140zu.pdf</a>                                                                            |
|                            | <a href="#">eaton-xpole-combined-mcb-rcd-device-rcbo-packaging-manual-multilingual.pdf</a>                                       |
| MCAD MODEL                 | <a href="#">eaton-rcd-with-overcurrent-protection-3d-models-frbm-3n-rcbo.stp</a>                                                 |
| PEP ECO-PASSPORT           | <a href="#">eaton-rcd-with-overcurrent-protection-pep-eato-00113-v0101-en.pdf</a>                                                |
| WIRING DIAGRAMS            | <a href="#">Contact Sequence xPole mRB4/mRB6 3N</a>                                                                              |
|                            | <a href="#">eaton-mcb-xpole-mrb4-6-wiring-diagram.eps</a>                                                                        |

|                 |
|-----------------|
| PROJECT NAME:   |
| PROJECT NUMBER: |
| PREPARED BY:    |
| DATE:           |



**Eaton Corporation plc** Eaton House  
30 Pembroke Road  
Dublin 4, Ireland  
Eaton.com

© 2026 Eaton. All Rights Reserved.

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

