

# Specifications



Photo is representative

## Eaton 176066

Eaton Moeller series xEffect - FAZ-DC MCB.  
Miniature circuit breaker (MCB), 6 A, 1p,  
characteristic: B, DC

### General specifications

|                                 |                                              |
|---------------------------------|----------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller series<br>xEffect - FAZ-DC MCB |
| <b>CATALOG NUMBER</b>           | 176066                                       |
| <b>MODEL CODE</b>               | FAZ-B6/1-DC                                  |
| <b>EAN</b>                      | 4015081712625                                |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 80 mm                                        |
| <b>PRODUCT HEIGHT</b>           | 75.5 mm                                      |
| <b>PRODUCT WIDTH</b>            | 17.7 mm                                      |
| <b>PRODUCT WEIGHT</b>           | 0.109 kg                                     |
| <b>COMPLIANCES</b>              | RoHS conform                                 |
| <b>CERTIFICATIONS</b>           | EN45545-2<br>IEC 61373                       |



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## Additional information

|                               |                                                                                                           |
|-------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>CURRENT LIMITING CLASS</b> | 3                                                                                                         |
| <b>FEATURES</b>               | Additional equipment possible                                                                             |
| <b>SPECIAL FEATURES</b>       | Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity |
| <b>USED WITH</b>              | Miniature circuit breaker FAZ-DC                                                                          |

## Delivery programme

|                                    |                                                                                              |
|------------------------------------|----------------------------------------------------------------------------------------------|
| <b>AMPERAGE RATING</b>             | 6 A                                                                                          |
| <b>APPLICATION</b>                 | Switchgear for DC applications                                                               |
| <b>NUMBER OF POLES</b>             | Single-pole                                                                                  |
| <b>NUMBER OF POLES (PROTECTED)</b> | 1                                                                                            |
| <b>NUMBER OF POLES (TOTAL)</b>     | 1                                                                                            |
| <b>RELEASE CHARACTERISTIC</b>      | B                                                                                            |
| <b>TRIPPING CHARACTERISTIC</b>     | B                                                                                            |
| <b>TYPE</b>                        | <ul style="list-style-type: none"><li>• FAZ-DC</li><li>• Miniature circuit breaker</li></ul> |

## 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>                           | 75 °C  |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                           | -25 °C |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>                 | 1.8 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>OVERVOLTAGE CATEGORY</b>                                              | III   |
| <b>POLLUTION DEGREE</b>                                                  | 2     |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                            | 4 kV  |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                     | 440 V |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>                              | 250 V |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V</b> | 10 kA |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 400 V</b> | 10 kA |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>                         | 10 kA |
| <b>VOLTAGE TYPE</b>                                                      | DC    |

### Technical data - mechanical

|                                                                |                    |
|----------------------------------------------------------------|--------------------|
| <b>BUILT-IN DEPTH</b>                                          | 70.5 mm            |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - 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 (SOLID-CORE) - MAX</b>  | 25 mm <sup>2</sup> |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>  | 1 mm <sup>2</sup>  |
| <b>DEGREE OF PROTECTION</b>                                    | IP20               |
| <b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>                     | 1                  |

## Resources

|                            |                                                                                                                                            |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| BROCHURES                  | <a href="#">eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf</a>                                                                  |
| CHARACTERISTIC CURVE       | <a href="#">eaton-xeffect-faz-dc-mcb-characteristic-curve.jpg</a><br><a href="#">eaton-xeffect-faz-dc-mcb-characteristic-curve-002.jpg</a> |
| DECLARATIONS OF CONFORMITY | <a href="#">eaton-mcb-declaration-of-conformity-eu250393en.pdf</a><br><a href="#">eaton-mcb-declaration-of-conformity-uk251435en.pdf</a>   |
| DRAWINGS                   | <a href="#">eaton-xeffect-faz-dc-mcb-dimensions.jpg</a>                                                                                    |
| ECAD MODEL                 | <a href="#">ETN.FAZ-B6_1-DC.edz</a>                                                                                                        |
| INSTALLATION INSTRUCTIONS  | <a href="#">eaton-mcb-rccb-rcbo-g9-il019140zu.pdf</a>                                                                                      |
| MCAD MODEL                 | <a href="#">eaton-non-selective-universal-mcb-mcad-3d-models-faz-xxx-1p.stp</a>                                                            |
| WIRING DIAGRAMS            | <a href="#">eaton-xeffect-faz-dc-mcb-wiring-diagram.jpg</a>                                                                                |

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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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