

# Specifications

## Eaton 240938

Eaton Moeller series xEffect - FAZ-T MCB.  
FAZ-T, 4 pole, tripping characteristic: B, rated  
current In: 20 A

### General specifications

|                                 |                                             |
|---------------------------------|---------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller series<br>xEffect - FAZ-T MCB |
| <b>CATALOG NUMBER</b>           | 240938                                      |
| <b>MODEL CODE</b>               | FAZT-B20/4                                  |
| <b>EAN</b>                      | 4015082409388                               |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 80 mm                                       |
| <b>PRODUCT HEIGHT</b>           | 75.5 mm                                     |
| <b>PRODUCT WIDTH</b>            | 72 mm                                       |
| <b>PRODUCT WEIGHT</b>           | 0.475 kg                                    |
| <b>COMPLIANCES</b>              | RoHS conform                                |
| <b>CERTIFICATIONS</b>           | IEC/EN 60947-2<br>EN45545-2<br>IEC 61373    |

## Product specifications

|                                                                                         |                                                                                                                                  |
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| <b>USED WITH</b>                                                                        | FAZ-T<br>Miniature circuit breaker                                                                                               |
| <b>AMPERAGE RATING</b>                                                                  | 20 A                                                                                                                             |
| <b>FEATURES</b>                                                                         | Additional equipment possible                                                                                                    |
| <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</b>                                                                   | Does not apply, since the                                                                                                        |

## Resources

|                                   |                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>BROCHURES</b>                  | <a href="#">eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf</a>                                                                                                                                                                                                                                                                                                |
| <b>CHARACTERISTIC CURVE</b>       | <a href="#">eaton-xeffect-faz-mcb-characteristic-curve.jpg</a><br><a href="#">eaton-mcb-characteristic-xeffect-faz-t-characteristic-curve.eps</a>                                                                                                                                                                                                                        |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-mcb-declaration-of-conformity-uk251437en.pdf</a><br><a href="#">eaton-mcb-declaration-of-conformity-eu250398en.pdf</a>                                                                                                                                                                                                                                 |
| <b>DRAWINGS</b>                   | <a href="#">eaton-xeffect-faz-mcb-dimensions-004.jpg</a><br><a href="#">eaton-mcb-xeffect-faz-t-dimensions.eps</a><br><a href="#">eaton-xeffect-faz-t-mcb-3d-drawing.jpg</a><br><a href="#">eaton-xeffect-faz-t-mcb-3d-drawing-005.jpg</a><br><a href="#">eaton-xeffect-faz-t-mcb-3d-drawing-002.jpg</a><br><a href="#">eaton-mcb-faz-xeffect-faz-3d-drawing-004.eps</a> |
| <b>ECAD MODEL</b>                 | <a href="#">eaton-eaton-moeller-series-xeffect-faz-t-mcb-eplan-240938.edz</a>                                                                                                                                                                                                                                                                                            |
| <b>INSTALLATION INSTRUCTIONS</b>  | <a href="#">eaton-mcb-rccb-rcbo-g9-il019140zu.pdf</a>                                                                                                                                                                                                                                                                                                                    |
| <b>MCAD MODEL</b>                 | <a href="#">eaton-non-selective-universal-mcb-mcad-3d-models-faz-xxx-4p.stp</a>                                                                                                                                                                                                                                                                                          |
| <b>PEP ECO-PASSPORT</b>           | <a href="#">eaton-non-selective-universal-mcb-pep-eato-00047-v0101-en.pdf</a>                                                                                                                                                                                                                                                                                            |
| <b>WIRING DIAGRAMS</b>            | <a href="#">eaton-mcb-xeffect-faz-wiring-diagram-004.eps</a><br><a href="#">eaton-xpole-mmc4-6-m-mcb-wiring-diagram-006.jpg</a>                                                                                                                                                                                                                                          |

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| <b>PROTECTION OF ASSEMBLIES</b>                                 | entire switchgear needs to be evaluated.                              |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                   | Meets the product standard's requirements.                            |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                   | Does not apply, since the 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.                                |
| <b>FRAME</b>                                                    | 45 mm                                                                 |
| <b>FREQUENCY RATING</b>                                         | 50 Hz / 60 Hz                                                         |
| <b>POLLUTION DEGREE</b>                                         | 2                                                                     |
| <b>LIFESPAN, MECHANICAL</b>                                     | 10000 operations                                                      |
| <b>MOUNTING METHOD</b>                                          | Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715 |
| <b>DEGREE OF PROTECTION</b>                                     | IP20                                                                  |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>            | 13.1 W                                                                |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                   | 4 kV                                                                  |
| <b>BUSBAR MATERIAL THICKNESS</b>                                | 0.8 mm (except N 0.5 SU)                                              |
| <b>TERMINAL PROTECTION</b>                                      | Finger and hand touch safe, DGUV VS3, EN 50274                        |
| <b>TERMINALS (TOP AND BOTTOM)</b>                               | Twin-purpose terminals                                                |
| <b>TRIPPING CHARACTERISTIC</b>                                  | B                                                                     |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 75 °C                                                                 |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                      | -25 °C                                                                |
| <b>BUILT-IN DEPTH</b>                                           | 70.5 mm                                                               |

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| <b>CONNECTABLE<br/>CONDUCTOR CROSS<br/>SECTION (MULTI-WIRED)<br/>- MAX</b> | 25 mm <sup>2</sup>                                                                             |
| <b>CONNECTABLE<br/>CONDUCTOR CROSS<br/>SECTION (MULTI-WIRED)<br/>- MIN</b> | 1 mm <sup>2</sup>                                                                              |
| <b>CONNECTABLE<br/>CONDUCTOR CROSS<br/>SECTION (SOLID-CORE) -<br/>MAX</b>  | 25 mm <sup>2</sup>                                                                             |
| <b>CONNECTABLE<br/>CONDUCTOR CROSS<br/>SECTION (SOLID-CORE) -<br/>MIN</b>  | 1 mm <sup>2</sup>                                                                              |
| <b>CURRENT LIMITING<br/>CLASS</b>                                          | 3                                                                                              |
| <b>ENCLOSURE WIDTH</b>                                                     | 80 mm                                                                                          |
| <b>FREQUENCY RATING -<br/>MAX</b>                                          | 60 Hz                                                                                          |
| <b>FREQUENCY RATING -<br/>MIN</b>                                          | 50 Hz                                                                                          |
| <b>HEAT DISSIPATION<br/>CAPACITY</b>                                       | 0 W                                                                                            |
| <b>HEAT DISSIPATION PER<br/>POLE, CURRENT-<br/>DEPENDENT</b>               | 0 W                                                                                            |
| <b>DIRECTION OF<br/>INCOMING SUPPLY</b>                                    | As required                                                                                    |
| <b>VOLTAGE RATING (IEC/EN<br/>60898-1)</b>                                 | 400 VAC                                                                                        |
| <b>WIDTH IN NUMBER OF<br/>MODULAR SPACINGS</b>                             | 4                                                                                              |
| <b>VOLTAGE RATING (IEC/EN<br/>60947-2)</b>                                 | 415 V                                                                                          |
| <b>VOLTAGE TYPE</b>                                                        | AC                                                                                             |
| <b>MOUNTING POSITION</b>                                                   | As required                                                                                    |
| <b>OVERVOLTAGE<br/>CATEGORY</b>                                            | III                                                                                            |
| <b>NUMBER OF POLES</b>                                                     | Four-pole                                                                                      |
| <b>LIFESPAN, ELECTRICAL</b>                                                | 4000 operations                                                                                |
| <b>RELEASE<br/>CHARACTERISTIC</b>                                          | B                                                                                              |
| <b>TYPE</b>                                                                | <ul style="list-style-type: none"> <li>• FAZ-T</li> <li>• Miniature circuit breaker</li> </ul> |
| <b>SPECIAL FEATURES</b>                                                    | Ambient temperature hint:<br>a 1 °C increase results in a                                      |

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|                                                                              | 0.5% linear reduction of current carrying capacity                                                                                                                                                     |
| <b>APPLICATION</b>                                                           | <ul style="list-style-type: none"> <li>• Switchgear for industrial and advanced commercial applications</li> <li>• xEffect - Switchgear for industrial and advanced commercial applications</li> </ul> |
| <b>MOUNTING WIDTH</b>                                                        | 17.5 mm                                                                                                                                                                                                |
| <b>MOUNTING WIDTH PER POLE</b>                                               | 17.5 mm                                                                                                                                                                                                |
| <b>NUMBER OF POLES (PROTECTED)</b>                                           | 4                                                                                                                                                                                                      |
| <b>NUMBER OF POLES (TOTAL)</b>                                               | 4                                                                                                                                                                                                      |
| <b>OPERATIONAL VOLTAGE (IEC/EN 60947-2) - MAX</b>                            | 440 VAC                                                                                                                                                                                                |
| <b>OPERATIONAL VOLTAGE AT DC (EC/EN 60947-2) - MAX</b>                       | 60 VDC                                                                                                                                                                                                 |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                         | 440 V                                                                                                                                                                                                  |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>         | 20 A                                                                                                                                                                                                   |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>                                  | 440 V                                                                                                                                                                                                  |
| <b>RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICS</b>  | 7.5 kA                                                                                                                                                                                                 |
| <b>RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60947-2) - ICS</b>  | 7.5 kA                                                                                                                                                                                                 |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICN AT 230 V</b> | 15 kA                                                                                                                                                                                                  |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)- ICN AT 400 V</b>  | 15 kA                                                                                                                                                                                                  |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V</b>     | 20 kA                                                                                                                                                                                                  |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC</b>                            | 20 kA                                                                                                                                                                                                  |

|                                                                        |                                        |
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| <b>60947-2)- ICU AT 400 V</b>                                          |                                        |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60898-1)</b>                       | 15 kA                                  |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>                       | 25 kA                                  |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2) AT MAX VOLTAGE RATING</b> | 15 kA                                  |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>                  | 0 W                                    |
| <b>TERMINAL CAPACITY</b>                                               | 1 mm <sup>2</sup> - 25 mm <sup>2</sup> |
| <b>TIGHTENING TORQUE</b>                                               | Max. 2.4 Nm                            |
| <b>POWER LOSS</b>                                                      | 13.1 W                                 |

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

