

## Eaton 278847

Eaton Moeller series xEffect - FAZ MCB. FAZ, 3-pole, tripping characteristic: B, rated current In: 16 A

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| <b>PRODUCT NAME</b>         | Eaton Moeller series xEffect - FAZ MCB                                                                                                                                                                                                                                           |
| <b>CATALOG NUMBER</b>       | 278847                                                                                                                                                                                                                                                                           |
| <b>PRODUCT LENGTH/DEPTH</b> | 80 mm                                                                                                                                                                                                                                                                            |
| <b>PRODUCT HEIGHT</b>       | 75.5 mm                                                                                                                                                                                                                                                                          |
| <b>PRODUCT WIDTH</b>        | 54 mm                                                                                                                                                                                                                                                                            |
| <b>PRODUCT WEIGHT</b>       | 0.333 kg                                                                                                                                                                                                                                                                         |
| <b>COMPLIANCES</b>          | UL CSA09 (with supplementary protector only)<br>RoHS conform                                                                                                                                                                                                                     |
| <b>CERTIFICATIONS</b>       | CE marking<br>UL 1077<br>CSA-C22.2 No. 235<br>UL (File No. E177451)<br>IEC/EN 60898<br>CSA (Class No. 3215-30)<br>CSA (File No. 204453)<br>North America (UL recognized, CSA certified)<br>IEC/EN 60947-2<br>UL (Category Control Number QVNU2, QVNU8)<br>EN45545-2<br>IEC 61373 |

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| <b>USED WITH</b>                                                                        | Miniature circuit breaker<br>FAZ                                                                                                 |
| <b>AMPERAGE RATING</b>                                                                  | 16 A                                                                                                                             |
| <b>VOLTAGE RATING</b>                                                                   | 240 V AC / 415 V AC                                                                                                              |
| <b>FEATURES</b>                                                                         | Additional equipment<br>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                                                                             |

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|                             | <a href="#">eaton-mcb-xeffect-faz-characteristic-curve.eps</a>                             |
| <b>CHARACTERISTIC CURVE</b> | <a href="#">eaton-mcb-tripping-characteristic-xeffect-faz-characteristic-curve-002.eps</a> |
|                             | <a href="#">eaton-mcb-current-xeffect-faz-characteristic-curve-002.eps</a>                 |
|                             | <a href="#">eaton-xeffect-faz-mcb-characteristic-curve.jpg</a>                             |
|                             | <a href="#">eaton-mcb-current-xeffect-faz-characteristic-curve.eps</a>                     |
|                             | <a href="#">eaton-mcb-xeffect-faz-characteristic-curve-002.eps</a>                         |
|                             | <a href="#">eaton-xpole-mmc4-6-m-mcb-wiring-diagram-005.jpg</a>                            |
|                             | <a href="#">eaton-mcb-xeffect-faz-wiring-diagram-003.eps</a>                               |
|                             | <a href="#">eaton-mcb-xeffect-faz-dimensions-003.eps</a>                                   |
|                             | <a href="#">eaton-xeffect-faz-mcb-dimensions-003.jpg</a>                                   |
|                             | <a href="#">eaton-xeffect-faz-mcb-3d-drawing-007.jpg</a>                                   |
|                             | <a href="#">eaton-xeffect-faz-mcb-3d-drawing.jpg</a>                                       |
|                             | <a href="#">eaton-mcb-faz-xeffect-faz-3d-drawing-003.eps</a>                               |
|                             | <a href="#">eaton-xeffect-faz-mcb-3d-drawing-008.jpg</a>                                   |

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|                                                                 | 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 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>POLLUTION DEGREE</b>                                         | 2                                                                  |
| <b>MOUNTING METHOD</b>                                          | Top-hat rail IEC/EN 60715                                          |
| <b>DEGREE OF PROTECTION</b>                                     | IP20<br>IP20 (IEC)<br>UL/CSA Type: -<br>IP40 (when fitted)         |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>            | 6.9 W                                                              |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                   | 4 kV                                                               |
| <b>ADMISSIBLE BACK-UP FUSE - MAX</b>                            | 125 A gL/gG                                                        |
| <b>BREAKING CAPACITY</b>                                        | 10 kA (UL1077)                                                     |
| <b>BUSBAR MATERIAL THICKNESS</b>                                | 0.8 mm - 2 mm                                                      |
| <b>TERMINAL PROTECTION</b>                                      | Finger and hand touch safe, DGUV VS3, EN 50274                     |
| <b>TERMINALS (TOP AND</b>                                       | Twin-purpose terminals                                             |

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| <b>BOTTOM)</b>                                                 |                    |
| <b>TRIPPING CHARACTERISTIC</b>                                 | B                  |
| <b>VOLTAGE RATING (UL CSA 13)</b>                              | 480 Y/277 V AC     |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                     | 75 °C              |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                     | -25 °C             |
| <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>CURRENT LIMITING CLASS</b>                                  | 3                  |
| <b>ENCLOSURE WIDTH</b>                                         | 80 mm              |
| <b>FREQUENCY RATING - MAX</b>                                  | 60 Hz              |
| <b>FREQUENCY RATING - MIN</b>                                  | 50 Hz              |
| <b>HEAT DISSIPATION CAPACITY</b>                               | 0 W                |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>            | 0 W                |
| <b>DIRECTION OF INCOMING SUPPLY</b>                            | As required        |
| <b>VOLTAGE RATING (IEC/EN 60898-1)</b>                         | 415 VAC            |
| <b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>                     | 3                  |
| <b>VOLTAGE RATING (UL)</b>                                     | 480Y/277 V         |
| <b>VOLTAGE RATING AT DC</b>                                    | 60 V DC (per pole) |
| <b>VOLTAGE TYPE</b>                                            | AC                 |
| <b>MOUNTING POSITION</b>                                       | As required        |

|                                                                      |                                                                                                                                                                                                                                                |
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| <b>OVERVOLTAGE CATEGORY</b>                                          | III                                                                                                                                                                                                                                            |
| <b>NUMBER OF POLES</b>                                               | Three-pole                                                                                                                                                                                                                                     |
| <b>LIFESPAN, ELECTRICAL</b>                                          | 10000 operations                                                                                                                                                                                                                               |
| <b>RELEASE CHARACTERISTIC</b>                                        | B                                                                                                                                                                                                                                              |
| <b>TYPE</b>                                                          | <ul style="list-style-type: none"> <li>• FAZ</li> <li>• Miniature circuit breaker</li> </ul>                                                                                                                                                   |
| <b>SPECIAL FEATURES</b>                                              | Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity                                                                                                                                      |
| <b>APPLICATION</b>                                                   | <ul style="list-style-type: none"> <li>• Branch circuits, not as BCPD</li> <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>SELECTIVITY CLASS</b>                                             | 3                                                                                                                                                                                                                                              |
| <b>MOUNTING WIDTH PER POLE</b>                                       | 17.5 mm                                                                                                                                                                                                                                        |
| <b>NUMBER OF POLES (PROTECTED)</b>                                   | 3                                                                                                                                                                                                                                              |
| <b>NUMBER OF POLES (TOTAL)</b>                                       | 3                                                                                                                                                                                                                                              |
| <b>OPERATIONAL SWITCHING CAPACITY</b>                                | 7.5 kA                                                                                                                                                                                                                                         |
| <b>OPERATIONAL VOLTAGE (IEC/EN 60947-2) - MAX</b>                    | 440 VAC                                                                                                                                                                                                                                        |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                 | 440 V                                                                                                                                                                                                                                          |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 16 A                                                                                                                                                                                                                                           |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>                          | 400 V                                                                                                                                                                                                                                          |
| <b>RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-</b>  | 7.5 kA                                                                                                                                                                                                                                         |

|                                                                              |                         |
|------------------------------------------------------------------------------|-------------------------|
| <b>1) - ICS</b>                                                              |                         |
| <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> | 10 kA                   |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)- ICN AT 400 V</b>  | 10 kA                   |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V</b>     | 15 kA                   |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 400 V</b>     | 15 kA                   |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60898-1)</b>                             | 10 kA                   |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>                             | 15 kA                   |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2) AT MAX VOLTAGE RATING</b>       | 10 kA                   |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>                        | 0 W                     |
| <b>TERMINAL CAPACITY (CONTROL CABLE)</b>                                     | 25 mm <sup>2</sup> (1x) |
| <b>TERMINAL CAPACITY OF SCREW TERMINALS FOR MAIN CABLE</b>                   | 10 mm <sup>2</sup> (2x) |
| <b>POWER LOSS</b>                                                            | 7.2 W                   |

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| PROJECT NAME:   |
| PROJECT NUMBER: |
| PREPARED BY:    |
| :               |



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