# Specifications




## Eaton 301803

Eaton Moeller series xPole - PFIM Type B RCCB. Residual current circuit-breaker, all-current sensitive, 63 A, 2p, 30 mA, type XG/B

| General specifications | |
|---|---|
| **PRODUCT NAME** | Eaton Moeller series xPole - PFIM Type B RCCB |
| **CATALOG NUMBER** | 301803 |
| **MODEL CODE** | PFIM-63/2/003-XG/B |
| **EAN** | 9010238143913 |
| **PRODUCT LENGTH/DEPTH** | 76 mm |
| **PRODUCT HEIGHT** | 80 mm |
| **PRODUCT WIDTH** | 70 mm |
| **PRODUCT WEIGHT** | 0.32 kg |
| **COMPLIANCES** | RoHS conform |
| **CERTIFICATIONS** | IEC/EN 61008<br>IEC/EN 62423 |

## Additional information

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| **ACCESSORIES REQUIRED** | Z-HK 248432 |
| **FEATURES** | Residual current circuit breaker<br>Additional equipment possible |
| **FITTED WITH:** | IS/SPE-1TE 101911<br>Interlocking device |
| **SPECIAL FEATURES** | • Current test marks as per inscription<br>• Maximum operating temperature is 50 °C: Starting at 40 °C, the max. permissible continuous current decreases by 2.2% for every 1 °C<br>• Tripping signal contact for subsequent installation Z-NHK 248434 |
| **USED WITH** | PFIM<br>Type B<br>Residual current circuit breakers<br>KLV-TC-2 276240 (Compact enclosure)<br>Z-FW/LP 248296 (Remote control and automatic switching device)<br>Z-RC/AK-2MU 285385 (sealing cover set) |

## Delivery program

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| **AMPERAGE RATING** | 63 A |
| **APPLICATION** | • Switchgear for residential and commercial applications<br>• xPole - Switchgear for residential and commercial applications |
| **FAULT CURRENT RATING** | 30 mA |
| **IMPULSE WITHSTAND CURRENT** | Surge-proof, 3 kA |
| **NUMBER OF POLES** | Two-pole |
| **RATED SHORT-CIRCUIT STRENGTH** | 10 kA |
| **SENSITIVITY TYPE** | All current sensitive |
| **TRIPPING TIME** | Short time-delayed |
| **TYPE** | • PFIM<br>• Residual current circuit breakers<br>• Type B |

## Design verification as per IEC/EN 61439

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| **10.10 TEMPERATURE RISE** | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| **10.11 SHORT-CIRCUIT RATING** | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| **10.12 ELECTROMAGNETIC COMPATIBILITY** | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| **10.13 MECHANICAL FUNCTION** | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |
| **10.2.2 CORROSION RESISTANCE** | Meets the product standard's requirements. |
| **10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES** | Meets the product standard's requirements. |
| **10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT** | Meets the product standard's requirements. |
| **10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS** | Meets the product standard's requirements. |
| **10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION** | Meets the product standard's requirements. |
| **10.2.5 LIFTING** | Does not apply, since the entire switchgear needs to be evaluated. |
| **10.2.6 MECHANICAL IMPACT** | Does not apply, since the entire switchgear needs to be evaluated. |
| **10.2.7 INSCRIPTIONS** | Meets the product standard's requirements. |
| **10.3 DEGREE OF PROTECTION OF ASSEMBLIES** | Does not apply, since the entire switchgear needs to be evaluated. |
| **10.4 CLEARANCES AND CREEPAGE DISTANCES** | Meets the product standard's requirements. |
| **10.5 PROTECTION AGAINST ELECTRIC SHOCK** | Does not apply, since the entire switchgear needs to be evaluated. |
| **10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS** | Does not apply, since the entire switchgear needs to be evaluated. |
| **10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS** | Is the panel builder's responsibility. |
| **10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS** | Is the panel builder's responsibility. |

## Design verification as per IEC/EN 61439 - technical data

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| **AMBIENT OPERATING TEMPERATURE - MAX** | 50 °C |
| **AMBIENT OPERATING TEMPERATURE - MIN** | -25 °C |
| **EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT** | 6.7 W |
| **HEAT DISSIPATION CAPACITY** | 0 W |
| **HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT** | 0 W |
| **RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)** | 63 A |
| **STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT** | 0 W |

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| **10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH** | Is the panel builder's responsibility. |
| **10.9.3 IMPULSE WITHSTAND VOLTAGE** | Is the panel builder's responsibility. |
| **10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL** | Is the panel builder's responsibility. |

## Technical data - electrical

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| **ADMISSIBLE BACK-UP FUSE OVERLOAD - MAX** | 63 A gG/gL |
| **FREQUENCY RATING** | 50 Hz |
| **LEAKAGE CURRENT TYPE** | B |
| **LIFESPAN, ELECTRICAL** | 4000 operations |
| **POLLUTION DEGREE** | 2 |
| **RATED FAULT CURRENT - MAX** | 0.03 A |
| **RATED FAULT CURRENT - MIN** | 0.03 A |
| **RATED IMPULSE WITHSTAND VOLTAGE (UIMP)** | 4 kV |
| **RATED INSULATION VOLTAGE (UI)** | 440 V |
| **RATED OPERATIONAL VOLTAGE (UE) - MAX** | 230 V |
| **RATED RESIDUAL MAKING AND BREAKING CAPACITY** | 630 A |
| **RATED SHORT-TIME WITHSTAND CURRENT (ICW)** | 10 kA |
| **SHORT-CIRCUIT RATING** | 63 A (max. admissible back-up fuse) |
| **SURGE CURRENT CAPACITY** | 0.25 kA |
| **TEST CIRCUIT RANGE** | 196 V AC - 264 V AC |
| **VOLTAGE RATING** | 230 V AC |

## Technical data - mechanical

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| **BUILT-IN DEPTH** | 70.5 mm |
| **BUILT-IN WIDTH (NUMBER OF UNITS)** | 70 mm (4 SU) |
| **BUSBAR MATERIAL THICKNESS** | 0.8 mm - 2 mm |
| **CLIMATIC PROOFING** | 25-55 °C / 90-95% relative humidity according to IEC 60068-2 |
| **CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX** | 16 mm² |
| **CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN** | 1.5 mm² |
| **CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX** | 35 mm² |
| **CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN** | 1.5 mm² |
| **DEGREE OF PROTECTION** | IP20<br>IP40, IP54 (with moisture-proof enclosure) |
| **FRAME** | 45 mm |
| **LIFESPAN, MECHANICAL** | 20000 operations |
| **MOUNTING METHOD** | DIN rail<br>Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 |
| **PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MAX** | 60 °C |
| **PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MIN** | -35 °C |
| **TERMINAL CAPACITY (SOLID WIRE)** | 1.5 mm² - 35 mm² |
| **TERMINAL CAPACITY (STRANDED CABLE)** | 16 mm² (2x) |
| **TERMINAL PROTECTION** | Finger and hand touch safe, DGUV VS3, EN 50274 |
| **TERMINALS (TOP AND BOTTOM)** | Open mouthed/lift terminals |
| **WIDTH IN NUMBER OF** | 2 |

| MODULAR SPACINGS |
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## Resources

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| **APPLICATION NOTES** | eaton-pfim-type-b-for-ev-chargers-application-notes-ap003003en-en-us.pdf |
| **CATALOGUES** | eaton-xpole-protective-devices-catalog-ca019014en-en-us.pdf |
| **DECLARATIONS OF CONFORMITY** | eaton-rccb-declaration-of-conformity-eu250146en.pdf<br><br>eaton-rccb-declaration-of-conformity-uk251423en.pdf |
| **INSTALLATION INSTRUCTIONS** | IL019236ZU |
| **INSTALLATION VIDEOS** | xpole-pfim-type-b-rccb-installation-video |
| **MCAD MODEL** | eaton-pfim-b-2p-3-d-model.stp |

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

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