

Specifications



Eaton 104603

Eaton Moeller series NZM Earth-fault release, 30mA, 3p, right

General specifications

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| PRODUCT NAME | Eaton Moeller series NZM Earth leakage relay |
| CATALOG NUMBER | 104603 |
| MODEL CODE | NZM1-XFI30R |
| EAN | 4015081044139 |
| PRODUCT LENGTH/DEPTH | 220 mm |
| PRODUCT HEIGHT | 80 mm |
| PRODUCT WIDTH | 105 mm |
| PRODUCT WEIGHT | 1.6 kg |
| COMPLIANCES | IEC RoHS conform |
| CERTIFICATIONS | IEC/EN 60947-2 IEC/EN 60947-2 annex B |

Product specifications

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| USED WITH | Three-pole NZM1 N(S)1 |
| VOLTAGE RATING | 200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage) |
| 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 | Does not apply, since the |

Resources

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| BROCHURES | eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf eaton-digital-nzm-brochure-br013003en-en-us.pdf |
| CATALOGUES | eaton-digital-nzm-catalog-ca013003en-en-us.pdf |
| DECLARATIONS OF CONFORMITY | eaton-accessories-declaration-of-conformity-eu250144en.pdf |
| DRAWINGS | eaton-circuit-breaker-symbol-nzm-earth-fault-release-symbol.eps eaton-circuit-breaker-release-dimensions.eps eaton-circuit-breaker-release-nzm-earth-fault-release-3d-drawing.eps |
| ECAD MODEL | ETN.104603.edz |
| INSTALLATION INSTRUCTIONS | eaton-residual-current-module-mount-right-nzm1-il01219028z.pdf |
| INSTALLATION VIDEOS | Introduction of the new digital circuit breaker NZM The new digital NZM Range |
| MCAD MODEL | DA-CD-nzm1_4_xfi DA-CS-nzm1_4_xfi |
| TECHNICAL DATA SHEETS | eaton-nzm-technical-information-sheet |

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| IMPACT | 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. |
| 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. |
| FRAME | 45 mm NZM1 |
| FREQUENCY RATING | 50 Hz / 60 Hz |
| MOUNTING METHOD | On the right side |
| AMBIENT OPERATING TEMPERATURE - MAX | 40 °C |
| AMBIENT OPERATING TEMPERATURE - MIN | -5 °C |
| CURRENT RATING - MAX | 160 A |
| POWER ON-DELAY TIME - MAX | 30 ms |
| POWER ON-DELAY TIME - MIN | 30 ms |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX | 415 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN | 200 V |
| RATED CONTROL SUPPLY | 415 V |

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| VOLTAGE (US) AT AC, 60 HZ - MAX | |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN | 200 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX | 0 V |
| CURRENT RATING - MIN | 15 A |
| DEGREE OF PROTECTION | IP20 (operating component area) |
| MOUNTING POSITION | Vertical and 90° in all directions |
| LIFESPAN, MECHANICAL | 20000 operations |
| FAULT CURRENT DETECTION RANGE | 50/60 Hz |
| NUMBER OF POLES | Three-pole |
| TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) | As NZM1 standard terminal without ferrules As NZM1 standard terminal with ferrules |
| TYPE | Accessory Earth-fault releases |
| SPECIAL FEATURES | Earth-fault release to IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three-phase systems Pulse-current sensitive type A according to core-balance principle For 3 pole NZM1 circuit-breakers and N1 switch-disconnectors Supply voltage-dependent $U_e = 200 - 415 \text{ V } 50/60 \text{ Hz}$ Control knobs, sealable. Fitted on the right side up to $I_n = 160 \text{ A}$ at $I_{Cu} = 50 \text{ kA}$ |
| APPLICATION | In three-phase systems |
| SHOCK RESISTANCE | 20 g (half-sinusoidal shock 20 ms) |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN | 0 V |
| RATED FAULT CURRENT - MAX | 0.03 A |
| RATED FAULT CURRENT - MIN | 0.03 A |
| RATED OPERATING VOLTAGE (UE) - MAX | 415 V |

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| SENSITIVITY TYPE | Pulse-current sensitive as per core-balance principle (type A) |
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| PROJECT NAME: |
| PROJECT NUMBER: |
| PREPARED BY: |
| DATE: |



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