

Specifications



Photo is representative

Eaton 265716

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 160A, B2-M160

General specifications

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| PRODUCT NAME | Eaton Moeller series NZM molded case circuit breaker thermo-magnetic |
| CATALOG NUMBER | 265716 |
| MODEL CODE | NZMB2-M160 |
| EAN | 4015082657161 |
| PRODUCT LENGTH/DEPTH | 149 mm |
| PRODUCT HEIGHT | 184 mm |
| PRODUCT WIDTH | 105 mm |
| PRODUCT WEIGHT | 2.327 kg |
| COMPLIANCES | RoHS conform |
| CERTIFICATIONS | IEC/EN 60947 IEC |
| GLOBAL CATALOG | 265716 |



Powering Business Worldwide

Product specifications

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| AMPERAGE RATING | 160 A |
| VOLTAGE RATING | 440 V - 440 V |
| CIRCUIT BREAKER FRAME TYPE | NZM2 |
| 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 | Does not apply, since the entire switchgear needs to |

Resources

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|-----------------------------------|---|
| BROCHURES | eaton-digital-nzm-brochure-br013003en-en-us.pdf eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf |
| CATALOGS | eaton-digital-nzm-catalog-ca013003en-en-us.pdf eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-030.eps eaton-circuit-breaker-nzm-mccb-characteristic-curve-052.eps eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-034.eps |
| CHARACTERISTIC CURVE | eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250290en.pdf |
| DECLARATIONS OF CONFORMITY | eaton-circuit-breaker-nzm-mccb-dimensions-019.eps eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps eaton-general-ie-ready-dilm-contactor-standards.eps |
| DRAWINGS | ETN.265716.edz |
| INSTALLATION INSTRUCTIONS | eaton-circuit-breakers-basic-device-nzm2-il01206006z.pdf |
| INSTALLATION VIDEOS | The new digital NZM Range Introduction of the new digital circuit breaker NZM |
| MCAD MODEL | DA-CS-nzm2_3p DA-CD-nzm2_3p |
| PEP ECO-PASSPORT | eaton-molded-case-switches-pep-eato-00207-v0101-en.pdf |
| TECHNICAL DATA SHEETS | eaton-nzm-technical-information-sheet |

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| ASSEMBLIES | 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. |
| FITTED WITH: | Thermal protection |
| POLLUTION DEGREE | 3 |
| MOUNTING METHOD | Fixed Built-in device fixed built-in technique |
| CLIMATIC PROOFING | Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT | 38.4 W |
| UTILIZATION CATEGORY | A (IEC/EN 60947-2) |
| ISOLATION | 500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary contacts) |
| AMBIENT OPERATING TEMPERATURE - MAX | 70 °C |
| AMBIENT OPERATING TEMPERATURE - MIN | -25 °C |
| AMBIENT STORAGE TEMPERATURE - MAX | 70 °C |
| AMBIENT STORAGE TEMPERATURE - MIN | 40 °C |
| PROTECTION AGAINST DIRECT CONTACT | Finger and back-of-hand proof to VDE 0106 part 100 |

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| RATED INSULATION VOLTAGE (UI) | 690 V |
| RATED OPERATING POWER AT AC-3, 230 V | 45 kW |
| RATED OPERATING POWER AT AC-3, 400 V | 90 kW |
| SWITCH OFF TECHNIQUE | Thermomagnetic |
| DEGREE OF PROTECTION | IP20 IP20 (basic degree of protection, in the operating controls area) |
| DIRECTION OF INCOMING SUPPLY | As required |
| ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT | Screw connection |
| LIFESPAN, MECHANICAL | 20000 operations |
| OVERVOLTAGE CATEGORY | III |
| RATED OPERATIONAL CURRENT | 134 A (400 V AC-3) |
| DEGREE OF PROTECTION (IP), FRONT SIDE | IP40 (with insulating surround) IP66 (with door coupling rotary handle) |
| DEGREE OF PROTECTION (TERMINATIONS) | IP00 (terminations, phase isolator and strip terminal) IP10 (tunnel terminal) |
| NUMBER OF POLES | Three-pole |
| TERMINAL CAPACITY (COPPER STRIP) | Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 10 segments of 24 mm x 0.8 mm at rear-side connection (punched) Max. 8 segments of 24 mm x 1 mm (2x) at box terminal Max. 10 segments of 16 mm x 0.8 mm at box terminal |
| LIFESPAN, ELECTRICAL | 7500 operations at 415 V AC-1 10000 operations at 400 V AC-1 |
| FUNCTIONS | Motor protection |
| TYPE | Circuit breaker |
| SPECIAL FEATURES | <ul style="list-style-type: none"> • Maximum back-up |

fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity I_{cn})

- Rated current = rated uninterrupted current: 160 A
- Tripping class 10 A
- IEC/EN 60947-4-1, IEC/EN 60947-2
- The circuit-breaker fulfills all requirements for AC-3 switching category.

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| APPLICATION | Use in unearthed supply systems at 440 V |
| SHOCK RESISTANCE | 20 g (half-sinusoidal shock 20 ms) |
| RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) | 160 A |
| SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX | 2240 A |
| SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN | 1280 A |
| HANDLE TYPE | Rocker lever |
| INSTANTANEOUS CURRENT SETTING (II) - MAX | 2240 A |
| INSTANTANEOUS CURRENT SETTING (II) - MIN | 1280 A |
| NUMBER OF OPERATIONS PER HOUR - MAX | 120 |
| OVERLOAD CURRENT SETTING (IR) - MAX | 160 A |
| OVERLOAD CURRENT SETTING (IR) - MIN | 125 A |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, | 30 kA |

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| 50/60 HZ | |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ | 18.5 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ | 18.5 kA |
| STANDARD TERMINALS | Screw terminal |
| OPTIONAL TERMINALS | Box terminal. Connection on rear. Tunnel terminal |
| RELEASE SYSTEM | Thermomagnetic release |
| SHORT-CIRCUIT TOTAL BREAKTIME | < 10 ms |
| TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE) | 16 mm ² (1x) at tunnel terminal 10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 10 mm ² - 16 mm ² (2x) direct at switch rear-side connection |
| TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE) | 25 mm ² - 50 mm ² (2x) direct at switch rear-side connection 25 mm ² - 50 mm ² (1x) direct at switch rear-side connection 25 mm ² - 185 mm ² (1x) at tunnel terminal |
| TERMINAL CAPACITY (CONTROL CABLE) | 0.75 mm ² - 1.5 mm ² (2x) 0.75 mm ² - 2.5 mm ² (1x) |
| TERMINAL CAPACITY (COPPER BUSBAR) | Min. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection Max. 24 mm x 8 mm direct at switch rear-side connection |
| TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE) | 6 mm ² - 16 mm ² (2x) direct at switch rear-side connection 10 mm ² - 16 mm ² (1x) at box terminal 10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 6 mm ² - 16 mm ² (2x) at box terminal 16 mm ² (1x) at tunnel terminal |
| TERMINAL CAPACITY (COPPER STRANDED) | 25 mm ² - 185 mm ² (1x) direct at switch rear-side |

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| CONDUCTOR/CABLE) | connection 25 mm ² - 70 mm ² (2x) direct at switch rear-side connection 25 mm ² - 70 mm ² (2x) at box terminal 25 mm ² - 185 mm ² (1x) at box terminal 25 mm ² - 185 mm ² (1x) at 1-hole tunnel terminal |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICU (IEC/EN 60947) AT 400/415 V, 50/60 HZ | 18.5 kA |
| RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ | 53 kA |
| RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ | 53 kA |
| RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ | 63 kA |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS | 6000 V |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS | 8000 V |
| POWER LOSS | 38.4 W |

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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