

# Specifications



Photo is representative

## Eaton 168513

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 500A, 320A in 4th pole, withdrawable unit, NZMN3-4-A500/320-SVE

### General specifications

|                             |  |
|-----------------------------|--|
| <b>PRODUCT NAME</b>         | Eaton Moeller series NZM molded case circuit breaker thermo-magnetic |
| <b>CATALOG NUMBER</b>       | 168513   |
| <b>MODEL CODE</b>           | NZMN3-4-A500/320-SVE   |
| <b>EAN</b>                  | 4015081649914  |
| <b>PRODUCT LENGTH/DEPTH</b> | 335 mm   |
| <b>PRODUCT HEIGHT</b>       | 215.2 mm   |
| <b>PRODUCT WIDTH</b>        | 185 mm   |
| <b>PRODUCT WEIGHT</b>       | 8.81 kg  |
| <b>COMPLIANCES</b>          | RoHS conform   |
| <b>GLOBAL CATALOG</b>       | 168513   |

## Product specifications

|   |  |
|---|--|
| <b>AMPERAGE RATING</b>  | 500 A  |
| <b>VOLTAGE RATING</b>   | 690 V - 690 V  |
| <b>FEATURES</b>   | Motor drive optional<br>Protection unit  |
| <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 PROTECTION OF</b>   | Does not apply, since the entire switchgear needs to   |

## Resources

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|-----------------------------------|--|
| <b>BROCHURES</b>                  | <a href="#">eaton-digital-nzm-brochure-br013003en-en-us.pdf</a>                            |
| <b>CATALOGS</b>                   | <a href="#">eaton-digital-nzm-catalog-ca013003en-en-us.pdf</a>                             |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250292en.pdf</a> |
| <b>ECAD MODEL</b>                 | <a href="#">DA-CE-ETN.NZMN3-4-A500_320-SVE</a>   |
| <b>INSTALLATION INSTRUCTIONS</b>  | <a href="#">eaton-circuit-breaker-plug-in-adapter-nzm2-il01219023z.pdf</a>                 |
| <b>INSTALLATION VIDEOS</b>        | <a href="#">The new digital NZM Range</a>  |
|                                   | <a href="#">Introduction of the new digital circuit breaker NZM</a>                        |
| <b>MCAD MODEL</b>                 | <a href="#">nzm3_4_a320_sve.dwg</a><br><a href="#">nzm3_4_a320_sve.stp</a>                 |
| <b>PEP ECO-PASSPORT</b>           | <a href="#">eaton-molded-case-switches-pep-eato-00231-v0101-en.pdf</a>                     |
| <b>TECHNICAL DATA SHEETS</b>      | <a href="#">eaton-nzm-technical-information-sheet</a>                                      |

|   |  |
|---|--|
| <b>ASSEMBLIES</b>   | 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>MOUNTING METHOD</b>  | Built-in device plug-in technique                                  |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>            | 130.5 W  |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 70 °C  |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                      | -25 °C   |
| <b>AMBIENT STORAGE TEMPERATURE - MAX</b>                        | 70 °C  |
| <b>AMBIENT STORAGE TEMPERATURE - MIN</b>                        | 40 °C  |
| <b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>      | 0  |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>  | 0  |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>    | 0  |
| <b>DEGREE OF PROTECTION</b>                                     | IP20   |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>               | Screw connection   |
| <b>CURRENT RATING OF NEUTRAL CONDUCTOR</b>                      | 60% of phase conductor   |
| <b>NUMBER OF POLES</b>  | Four-pole  |

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| <b>SPECIAL FEATURES</b>  | Rated current = rated<br>uninterrupted current: 500<br>A |
| <b>POSITION OF<br/>CONNECTION FOR MAIN<br/>CURRENT CIRCUIT</b>                                     | Front side   |
| <b>SHORT-CIRCUIT RELEASE<br/>NON-DELAYED SETTING -<br/>MAX</b>                                     | 5000 A   |
| <b>SHORT-CIRCUIT RELEASE<br/>NON-DELAYED SETTING -<br/>MIN</b>                                     | 3000 A   |
| <b>HANDLE TYPE</b>   | Rocker lever   |
| <b>SHORT DELAY CURRENT<br/>SETTING (ISD) - MAX</b>   | 0 A  |
| <b>SHORT DELAY CURRENT<br/>SETTING (ISD) - MIN</b>   | 0 A  |
| <b>INSTANTANEOUS<br/>CURRENT SETTING (II) -<br/>MAX</b>  | 10 A   |
| <b>INSTANTANEOUS<br/>CURRENT SETTING (II) -<br/>MIN</b>  | 6 A  |
| <b>OVERLOAD CURRENT<br/>SETTING (IR) - MAX</b>   | 500 A  |
| <b>OVERLOAD CURRENT<br/>SETTING (IR) - MIN</b>   | 400 A  |
| <b>OVERLOAD CURRENT<br/>SETTING (IR)</b>   | 250 A - 320 A  |
| <b>RATED SHORT-CIRCUIT<br/>BREAKING CAPACITY ICS<br/>(IEC/EN 60947) AT<br/>400/415 V, 50/60 HZ</b> | 50 kA  |
| <b>RATED SHORT-CIRCUIT<br/>BREAKING CAPACITY ICS<br/>(IEC/EN 60947) AT 500 V<br/>DC</b>            | 30 kA  |
| <b>RATED SHORT-CIRCUIT<br/>BREAKING CAPACITY ICS<br/>(IEC/EN 60947) AT 750 V<br/>DC</b>            | 30 kA  |

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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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