

# Specifications



Photo is representative



## Eaton 103035

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 8A, B2-S8-CNA

### General specifications

|                             |                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>         | Eaton Moeller series NZM molded case circuit breaker magnetic                                                                                                                                                                 |
| <b>CATALOG NUMBER</b>       | 103035                                                                                                                                                                                                                        |
| <b>MODEL CODE</b>           | NZMB2-S8-CNA                                                                                                                                                                                                                  |
| <b>EAN</b>                  | 4015081028740                                                                                                                                                                                                                 |
| <b>PRODUCT LENGTH/DEPTH</b> | 149 mm                                                                                                                                                                                                                        |
| <b>PRODUCT HEIGHT</b>       | 195 mm                                                                                                                                                                                                                        |
| <b>PRODUCT WIDTH</b>        | 105 mm                                                                                                                                                                                                                        |
| <b>PRODUCT WEIGHT</b>       | 2.345 kg                                                                                                                                                                                                                      |
| <b>COMPLIANCES</b>          | RoHS conform                                                                                                                                                                                                                  |
| <b>CERTIFICATIONS</b>       | UL listed<br>UL (File No. E31593)<br>UL (Category Control Number DKPU2)<br>UL/CSA<br>Specially designed for North America<br>CSA (Class No. 1432-01)<br>CSA certified<br>UL 489<br>CSA (File No. 22086)<br>CSA-C22.2 No. 5-09 |



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## Product specifications

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|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>AMPERAGE RATING</b>                                                                  | 8 A                                                                                                                              |
| <b>VOLTAGE RATING</b>                                                                   | 690 V - 690 V                                                                                                                    |
| <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</b>                                                                   | Does not apply, since the                                                                                                        |

## Resources

|                                   |                                                                                                                                                                                     |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BROCHURES</b>                  | <a href="#">eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf</a><br><a href="#">eaton-digital-nzm-brochure-br013003en-en-us.pdf</a>                                    |
| <b>CATALOGUES</b>                 | <a href="#">eaton-digital-nzm-catalog-ca013003en-en-us.pdf</a><br><a href="#">eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-034.eps</a>              |
| <b>CHARACTERISTIC CURVE</b>       | <a href="#">eaton-circuit-breaker-nzm-mccb-characteristic-curve-052.eps</a><br><a href="#">eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-030.eps</a> |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250290en.pdf</a><br><a href="#">eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps</a>              |
| <b>DRAWINGS</b>                   | <a href="#">eaton-circuit-breaker-nzm-mccb-dimensions-019.eps</a><br><a href="#">eaton-circuit-breaker-switch-nzm-mccb-3d-drawing.eps</a>                                           |
| <b>INSTALLATION INSTRUCTIONS</b>  | <a href="#">eaton-circuit-breakers-basic-device-nzm2-il01206006z.pdf</a><br><a href="#">Introduction of the new digital circuit breaker NZM</a>                                     |
| <b>INSTALLATION VIDEOS</b>        | <a href="#">The new digital NZM Range</a>                                                                                                                                           |
| <b>MCAD MODEL</b>                 | <a href="#">DA-CS-nzm2_3p</a><br><a href="#">DA-CD-nzm2_3p</a>                                                                                                                      |
| <b>TECHNICAL DATA SHEETS</b>      | <a href="#">eaton-nzm-technical-information-sheet</a>                                                                                                                               |

|                                                                 |                                                                                                      |
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| <b>PROTECTION OF ASSEMBLIES</b>                                 | 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>POLLUTION DEGREE</b>                                         | 3                                                                                                    |
| <b>MOUNTING METHOD</b>                                          | Fixed<br>Built-in device fixed built-in technique<br>DIN rail (top hat rail)<br>mounting optional    |
| <b>CLIMATIC PROOFING</b>                                        | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30                       |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>            | 0.88 W                                                                                               |
| <b>ISOLATION</b>                                                | 300 V AC (between the auxiliary contacts)<br>500 V AC (between auxiliary contacts and main contacts) |
| <b>DEGREE OF PROTECTION</b>                                     | IP20<br>IP20 (basic degree of protection, in the operating controls area)                            |
| <b>DIRECTION OF INCOMING SUPPLY</b>                             | As required                                                                                          |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>               | Screw connection                                                                                     |

|                                              |                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LIFESPAN, MECHANICAL</b>                  | 20000 operations                                                                                                                                                                                                                                                                                                                                                 |
| <b>OVERVOLTAGE CATEGORY</b>                  | III                                                                                                                                                                                                                                                                                                                                                              |
| <b>DEGREE OF PROTECTION (IP), FRONT SIDE</b> | IP40 (with insulating surround)<br>IP66 (with door coupling rotary handle)                                                                                                                                                                                                                                                                                       |
| <b>DEGREE OF PROTECTION (TERMINATIONS)</b>   | IP10 (tunnel terminal)<br>IP00 (terminations, phase isolator and strip terminal)                                                                                                                                                                                                                                                                                 |
| <b>NUMBER OF POLES</b>                       | Three-pole                                                                                                                                                                                                                                                                                                                                                       |
| <b>TERMINAL CAPACITY (COPPER STRIP)</b>      | Max. 10 segments of 16 mm x 0.8 mm at rear-side connection (punched)<br>Max. 10 segments of 16 mm x 0.8 mm at box terminal<br>Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched)<br>Min. 2 segments of 9 mm x 0.8 mm at box terminal                                                                                                            |
| <b>LIFESPAN, ELECTRICAL</b>                  | 6500 operations at 415 V AC-3<br>7500 operations at 400 V AC-1                                                                                                                                                                                                                                                                                                   |
| <b>FUNCTIONS</b>                             | Short-circuit protection                                                                                                                                                                                                                                                                                                                                         |
| <b>TYPE</b>                                  | Circuit breaker                                                                                                                                                                                                                                                                                                                                                  |
| <b>SPECIAL FEATURES</b>                      | <ul style="list-style-type: none"> <li>• Rated current = rated uninterrupted current: 8 A</li> <li>• This circuit-breaker is only allowed to be used for UL/CSA applications.</li> <li>• Motor protection in conjunction with contactor and overload relay</li> <li>• With short-circuit release</li> <li>• Without overload release <math>I_r</math></li> </ul> |
| <b>APPLICATION</b>                           | Branch circuits, feeder circuits                                                                                                                                                                                                                                                                                                                                 |
| <b>SHOCK RESISTANCE</b>                      | 20 g (half-sinusoidal shock 20 ms)                                                                                                                                                                                                                                                                                                                               |
| <b>RELEASE SYSTEM</b>                        | Thermomagnetic release                                                                                                                                                                                                                                                                                                                                           |
| <b>SHORT-CIRCUIT TOTAL</b>                   | < 10 ms                                                                                                                                                                                                                                                                                                                                                          |

|                                                                |                                                                                                                                                                                                                       |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BREAKTIME</b>                                               |                                                                                                                                                                                                                       |
| <b>TERMINAL CAPACITY<br/>(CONTROL CABLE)</b>                   | 14 mm <sup>2</sup> - 18 mm <sup>2</sup> (1x)<br>16 mm <sup>2</sup> - 18 mm <sup>2</sup> (2x)                                                                                                                          |
| <b>TERMINAL CAPACITY<br/>(COPPER BUSBAR)</b>                   | M8 at rear-side screw connection<br>Min. 16 mm x 5 mm direct at switch rear-side connection<br>Max. 20 mm x 5 mm direct at switch rear-side connection                                                                |
| <b>TERMINAL CAPACITY<br/>(COPPER SOLID CONDUCTOR/CABLE)</b>    | 6 mm <sup>2</sup> - 12 mm <sup>2</sup> (1x) at box terminal<br>6 mm <sup>2</sup> - 11 mm <sup>2</sup> (1x) direct at switch rear-side connection<br>6 mm <sup>2</sup> (1x) at tunnel terminal                         |
| <b>TERMINAL CAPACITY<br/>(COPPER STRANDED CONDUCTOR/CABLE)</b> | 4 mm <sup>2</sup> - 350 mm <sup>2</sup> (1x) at box terminal<br>4 mm <sup>2</sup> - 350 mm <sup>2</sup> (1x) at tunnel terminal<br>4 mm <sup>2</sup> - 3/0 mm <sup>2</sup> (1x) direct at switch rear-side connection |

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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