

# Specifications

## Eaton 107651

Eaton Series NZM motor protection circuit breaker, NZM2-frame, NZMB2, Magnetic only trip type, Three-pole, 1.6A, 25 kAIC, Motor protection without overload release

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series NZM molded case circuit breaker magnetic
<b>CATALOG NUMBER</b>	107651
<b>MODEL CODE</b>	NZMB2-S1,6-BT-CNA
<b>EAN</b>	4015081073177
<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 UL/CSA CSA certified CSA (Class No. 1432-01) CSA (File No. 22086) Specially designed for North America UL (Category Control Number DKPU2) UL (File No. E31593) UL 489 CSA-C22.2 No. 5-09
<b>GLOBAL CATALOG</b>	107651
<b>PRODUCT TYPE</b>	Molded case circuit breaker



Powering Business Worldwide

## Product specifications

<b>AMPERAGE RATING</b>	1.6 A
<b>VOLTAGE RATING</b>	440 V - 440 V
<b>TRIP TYPE</b>	Magnetic only
<b>CIRCUIT BREAKER TYPE</b>	NZMB2
<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-digital-nzm-brochure-br013003en-en-us.pdf</a> <a href="#">eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf</a>
<b>CATALOGS</b>	<a href="#">eaton-digital-nzm-catalog-ca013003en-en-us.pdf</a> <a href="#">eaton-circuit-breaker-nzm-mccb-characteristic-curve-052.eps</a> <a href="#">eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-030.eps</a> <a href="#">eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-034.eps</a>
<b>CHARACTERISTIC CURVE</b>	
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250290en.pdf</a> <a href="#">eaton-molded-case-circuit-breaker-declaration-of-conformity-uk251452en.pdf</a>
<b>DRAWINGS</b>	<a href="#">eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps</a> <a href="#">eaton-circuit-breaker-nzm-mccb-dimensions-019.eps</a> <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>
<b>INSTALLATION VIDEOS</b>	<a href="#">Introduction of the new digital circuit breaker NZM</a> <a href="#">The new digital NZM Range</a>
<b>MCAD MODEL</b>	<a href="#">eaton-molded-case-switches-mcad-3d-models-nzm2-3p-na-cna-bt.stp</a>

<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>CLASS</b>	Motor protection without overload release
<b>LIFESPAN, MECHANICAL</b>	20000 operations
<b>MOUNTING METHOD</b>	Fixed Built-in device fixed built-in technique DIN rail (top hat rail) mounting optional
<b>CLIMATIC PROOFING</b>	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	5.76 W
<b>INTERRUPT RATING</b>	25 kAIC
<b>ISOLATION</b>	500 V AC (between auxiliary contacts and main contacts)
<b>DEGREE OF PROTECTION</b>	IP20 (basic degree of protection, in the operating controls area) IP20
<b>DIRECTION OF INCOMING SUPPLY</b>	As required
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Frame clamp

	<a href="#">eaton-molded-case-switches-mcad-drawings-nzm2-3p-na-cna-bt.dwg</a>
PEP ECO-PASSPORT	<a href="#">eaton-molded-case-switches-pep-eato-00245-v0101-en.pdf</a>
SPECIFICATIONS AND DATASHEETS	<a href="#">Eaton Specification Sheet - 107651</a>
TECHNICAL DATA SHEETS	<a href="#">eaton-nzm-technical-information-sheet</a>

<b>OVERVOLTAGE CATEGORY</b>	III
<b>DEGREE OF PROTECTION (IP), FRONT SIDE</b>	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
<b>DEGREE OF PROTECTION (TERMINATIONS)</b>	IP10 (tunnel terminal) IP00 (terminations, phase isolator and strip terminal)
<b>NUMBER OF POLES</b>	Three-pole
<b>TERMINAL CAPACITY (COPPER STRIP)</b>	Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 10 segments of 16 mm x 0.8 mm at box terminal Max. 10 segments of 16 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched)
<b>LIFESPAN, ELECTRICAL</b>	7500 operations at 400 V AC-1 6500 operations at 415 V AC-3
<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: 1.6 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 I<sub>r</sub></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 BREAKTIME</b>	< 10 ms
<b>TERMINAL CAPACITY (CONTROL CABLE)</b>	14 mm <sup>2</sup> - 18 mm <sup>2</sup> (1x)

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

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**



**Eaton Corporation plc** Eaton House  
30 Pembroke Road  
Dublin 4, Ireland  
Eaton.com

Follow us on social media to get the latest product and support information.

