

# Specifications

Photo is representative

## Eaton 259608

Eaton Moeller series NZM - Molded Case Circuit Breaker. Undervoltage release, 110-130VDC, +2early N/O, 2/3

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series NZM - Molded case circuit breaker
<b>CATALOG NUMBER</b>	259608
<b>MODEL CODE</b>	NZM2/3-XUHIV110-130DC
<b>EAN</b>	4015082596088
<b>PRODUCT LENGTH/DEPTH</b>	42 mm
<b>PRODUCT HEIGHT</b>	90 mm
<b>PRODUCT WIDTH</b>	30 mm
<b>PRODUCT WEIGHT</b>	0.074 kg
<b>COMPLIANCES</b>	IEC UL/CSA RoHS conform
<b>CERTIFICATIONS</b>	UL (Category Control Number DIHS) IEC60947 CSA-C22.2 No. 5-09 CSA (Class No. 1437-01) UL489 UL (File No. E140305) CSA (File No. 22086) CE marking UL listed CSA certified
<b>GLOBAL CATALOG</b>	259608
<b>PRODUCT TYPE</b>	Molded case circuit breaker



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## Product specifications

<b>USED WITH</b>	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)
<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 ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND</b>	Meets the product

## 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>
<b>ECAD MODEL</b>	<a href="#">ETN.NZM2_3-XUHIV110-130DC</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">eaton-circuit-breaker-voltage-release-nzm2-3-il012141zu.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>SPECIFICATIONS AND DATASHEETS</b>	<a href="#">Eaton Specification Sheet - 259608</a>
<b>TECHNICAL DATA SHEETS</b>	<a href="#">eaton-nzm-technical-information-sheet</a>

<b>CREEPAGE DISTANCES</b>	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>ELECTRIC CONNECTION TYPE</b>	Screw connection
<b>FITTED WITH:</b>	Two early-make auxiliary contacts
<b>FRAME</b>	NZM2/3
<b>MINIMUM COMMAND TIME - MAX</b>	15 ms
<b>MINIMUM COMMAND TIME - MIN</b>	10 ms
<b>NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)</b>	2
<b>REACTION TIME</b>	19 ms
<b>PICK-UP POWER CONSUMPTION AT AC (UNDERVOLTAGE RELEASE)</b>	1.5 VA
<b>PICK-UP POWER CONSUMPTION AT DC (UNDERVOLTAGE RELEASE)</b>	0.8 W
<b>VOLTAGE TOLERANCE - MAX</b>	1.1
<b>VOLTAGE TOLERANCE - MIN</b>	0.85
<b>RATED CONTROL SUPPLY VOLTAGE</b>	110 - 130 V DC
<b>SUITABLE FOR</b>	Off-load switch Power circuit breaker
<b>CONNECTION TYPE</b>	With bolt connection
<b>VOLTAGE TYPE</b>	DC

**DROP-OUT VOLTAGE OF  
UNDERVOLTAGE RELEASE  
AC/DC - MAX** 0.7 x Us

**DROP-OUT VOLTAGE OF  
UNDERVOLTAGE RELEASE  
AC/DC - MIN** 0.35 x Us

**TERMINAL CAPACITY  
(SOLID/FLEXIBLE  
CONDUCTOR)**

0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (1x)  
for undervoltage releases,  
off-delayed with ferrule  
18 - 14 AWG (1x) for  
undervoltage releases, off-  
delayed  
18 - 14 AWG (2x) at shunt  
release  
18 - 14 AWG (2x) for  
undervoltage releases, off-  
delayed  
0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (1x) at  
shunt release with ferrule  
0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (2x) at  
shunt release with ferrule  
0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (2x)  
for undervoltage releases,  
off-delayed with ferrule  
18 - 14 AWG (1x) at shunt  
release

**TYPE**

- Accessory
- Undervoltage  
release with early-  
make auxiliary  
contact

**SPECIAL FEATURES**

- Undervoltage  
release with 2  
early-make  
auxiliary contacts,  
e.g., for early-make  
connection of  
undervoltage  
release in main  
switch applications,  
as well as for  
interlock and load  
shedding circuits.
- For use with  
emergency-stop  
devices in  
connection with an  
emergency-stop  
button.
- When the under-  
voltage trip is  
switched off,  
accidental contact  
with the circuit  
breaker's primary

- contacts is prevented when switched on.
- Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms
  - Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
  - Cannot be used in conjunction with NZM...-XR... remote operator.

**POWER CONSUMPTION** 1.5 VA (sealing AC)  
0.8 W (sealing DC)

**RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX** 130 V

**RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN** 110 V

**NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)** 0

**NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)** 0

**RATED CONTROL VOLTAGE (RELAY CONTACTS)** 110 V DC  
130 V DC

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**



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