Specifications

# Eaton 259533




## Catalog Number: 259533

Eaton Moeller series NZM - Molded Case Circuit Breaker. Undervoltage release, 48VAC, +2early N/O, 1

## General specifications

**Product Name**
Eaton Moeller series NZM release

**Catalog Number**
259533

**EAN**
4015082595333

**Product Length/Depth**
37 mm

**Product Height**
66 mm

**Product Width**
32 mm

**Product Weight**
0.056 kg

**Compliances**
UL/CSA
IEC
RoHS conform

**Certifications**
CSA (File No. 22086)
CE marking
CSA (Class No. 1437-01)
UL489
CSA certified
IEC60947
UL listed
UL (File No. E140305)
UL (Category Control Number DIHS)
CSA-C22.2 No. 5-09

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## Product specifications

### Used with

NZM1(-4), N(S)1(-4)

### Type

Accessory Undervoltage release 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.

### 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.

## Resources

### 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

### Declarations of conformity

DA-DC-03_NZM1

### Drawings

eaton-circuit-breaker-release-nzm-mccb-dimensions.eps

eaton-circuit-breaker-undervoltage-nzm-mccb-3d-drawing-004.eps

### eCAD model

ETN.259533.edz

### Installation instructions

eaton-circuit-breaker-nzm1-xa-xahiv-xhiv-xu-xuhiv-il01203002z.pdf

### Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

### mCAD model

DA-CS-nzm1_xu

DA-CD-nzm1_xu

### Technical data sheets

eaton-nzm-technical-information-sheet

### 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 assemblies

Does not apply, since the entire switchgear needs to 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.

### Electric connection type

Screw connection

### Fitted with:

Two early-make auxiliary contacts

### Frame

NZM1

### Minimum command time - max

15 ms

Minimum command time - min

10 ms

Number of contacts (normally open contacts)

2

Reaction time

19 ms

Pick-up power consumption at AC (undervoltage release)

1.5 VA

Pick-up power consumption at DC (undervoltage release)

0.8 W

Voltage tolerance - max

1.1

Voltage tolerance - min

.85

Rated control supply voltage

48 V 50/60 Hz

Rated control supply voltage (Us) at AC, 50 Hz - max

48 V

Rated control supply voltage (Us) at AC, 50 Hz - min

48 V

Rated control supply voltage (Us) at AC, 60 Hz - max

48 V

Rated control supply voltage (Us) at AC, 60 Hz - min

48 V

Suitable for

Off-load switch

Connection type

With terminal block on the left-hand switch side

Voltage type

AC

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 $mm^2$ - 2.5 $mm^2$ (1x) at shunt release with ferrule

18 - 14 AWG (2x) at shunt release
18 - 14 AWG (2x) for undervoltage releases, off-delayed
18 - 14 AWG (1x) for undervoltage releases, off-delayed
0.75 mm² - 2.5 mm² (2x) at shunt release with ferrule
0.75 mm² - 2.5 mm² (2x) for undervoltage releases, off-delayed with ferrule
0.75 mm² - 2.5 mm² (1x) for undervoltage releases, off-delayed with ferrule
18 - 14 AWG (1x) at shunt release

### Power consumption

1.5 VA (sealing AC)
0.8 W (sealing DC)

### Rated control supply voltage (Us) at DC - max

0 V

### Rated control supply voltage (Us) at DC - min

0 V

### Number of contacts (normally closed contacts)

0

### Number of contacts (change-over contacts)

0

### Undelayed short-circuit release - min

0 A

### Undelayed short-circuit release - max

0 A

### Rated control voltage (relay contacts)

48 V AC

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

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