Specifications

# Eaton 284407

## Catalog Number: 284407

Eaton Moeller series NZM - Molded Case Circuit Breaker. Undervoltage release, 110-130VAC +2N/Oem




## General specifications

**Product Name**
Eaton Moeller series NZM release

**Catalog Number**
284407

**EAN**
4015082844073

**Product Length/Depth**
42 mm

**Product Height**
90 mm

**Product Width**
30 mm

**Product Weight**
0.074 kg

**Compliances**
IEC
UL/CSA
RoHS conform

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

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## Product specifications

### Used with

NZM3(-4), N(S)3(-4)
NZM2(-4), N(S)2(-4)

### 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
Cannot be used in conjunction with NZM...-XR... remote operator.
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.

## 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_NZM2

### Drawings

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

### eCAD model

ETN.NZM2_3-XUHIV20LK110-130AC

### Installation instructions

eaton-circuit-breaker-voltage-release-nzm2-3-il012141zu.pdf

### Installation videos

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

### Technical data sheets

eaton-nzm-technical-information-sheet

### 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.

### 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 separate early-make auxiliary contacts

Frame

NZM2/3

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

110 - 130 V 50/60 Hz

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

130 V

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

110 V

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

130 V

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

110 V

Suitable for

Off-load switch

Connection type

Auxiliary contact terminals wired to terminal block
Coil terminals with 3 m of loose connection cables

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

Power consumption

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

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)

110 V AC

130 V AC

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