

# Eaton 259438

Catalog Number: 259438

Eaton Moeller series NZM - Molded Case Circuit Breaker.  
Undervoltage release, 60VAC, 1

### General specifications



Product Name	Catalog Number
Eaton Moeller series NZM release	259438
EAN	Product Length/Depth
4015082594381	37 mm
Product Height	Product Width
66 mm	32 mm
Product Weight	Compliances
0.044 kg	UL/CSA
	IEC
	RoHS conform

### Certifications

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

## Product specifications

### Used with

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

### Type

Accessory Undervoltage release

### Special features

Non-delayed disconnection of NZM circuit-breaker or N switch-disconnector when the control voltage sinks below 35 – 70% US. 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. 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.

#### 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

#### 10.2.5 Lifting

## Resources

### Brochures

[eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf](#)

[eaton-digital-nzm-brochure-br013003en-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.259438.edz](#)

### Installation videos

[Introduction of the new digital circuit breaker NZM](#)

[The new digital NZM Range](#)

### mCAD model

[DA-CD-nzm1\\_xu](#)

[DA-CS-nzm1\\_xu](#)

### Technical data sheets

[eaton-nzm-technical-information-sheet](#)

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

#### Frame

NZM1

#### Minimum command time - max

15 ms

#### Minimum command time - min

10 ms

#### Number of contacts (normally open contacts)

0

#### 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

60 V 50/60 Hz

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

60 V

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

60 V

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

60 V

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

60 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)

18 - 14 AWG (1x) at shunt release

0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (2x) for undervoltage releases, off-delayed  
with ferrule

18 - 14 AWG (1x) for undervoltage releases, off-delayed

18 - 14 AWG (2x) at shunt release

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> (1x) for undervoltage releases, off-delayed  
with ferrule

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

#### 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)

60 V AC



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