

Eaton 259531

Catalog Number: 259531

Eaton Moeller series NZM - Molded Case Circuit Breaker.
Undervoltage release, 24VAC, +2early N/O, 1

General specifications



Product Name

Eaton Moeller series NZM release

Catalog Number

259531

EAN

4015082595319

Product Length/Depth

37 mm

Product Height

66 mm

Product Width

32 mm

Product Weight

0.084 kg

Compliances

UL/CSA

IEC

RoHS conform

Certifications

UL (File No. E140305)

CSA-C22.2 No. 5-09

CE marking

IEC60947

CSA (Class No. 1437-01)

UL (Category Control Number DIHS)

UL listed

CSA certified

UL489

CSA (File No. 22086)

Product specifications

Used with

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

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.

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.259531.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](#)

10.12 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 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

24 V 50/60 Hz

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

24 V

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

24 V

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

24 V

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

24 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 mm² - 2.5 mm² (2x) at shunt release with ferrule

18 - 14 AWG (1x) at shunt release

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

0.75 mm² - 2.5 mm² (1x) at shunt release with ferrule

0.75 mm² - 2.5 mm² (1x) for undervoltage releases, off-delayed
with ferrule

0.75 mm² - 2.5 mm² (2x) for undervoltage releases, off-delayed
with ferrule

18 - 14 AWG (2x) at shunt release

18 - 14 AWG (2x) for undervoltage releases, off-delayed

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)

24 V AC



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