Specifications

Eaton 259604



Catalog Number: 259604

Eaton Moeller series NZM - Molded Case Circuit Breaker. Undervoltage release, 48 V DC, +2early N/O, 2/3

General specifications

Product Name
Eaton Moeller series NZM release

Catalog Number
259604

EAN
4015082596040

Product Length/Depth
42 mm

Product Height
90 mm

Product Width
30 mm

Product Weight
0.074 kg

Compliances
UL/CSA
IEC
RoHS conform

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

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Product specifications

Used with

NZM2(-4), N2(-4)

NZM3(-4), N3(-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. Cannot be used in conjunction with NZM...-XR... remote operator.

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

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_NZM2

eCAD model

DA-CE-ETN.NZM2_3-XUHIV48DC

Installation instructions

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

Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

Technical data sheets

eaton-nzm-technical-information-sheet

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

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

48 V DC

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

0 V

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

0 V

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

0 V

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

0 V

Suitable for

Off-load switch

Connection type

With bolt connection

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

Power consumption

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

Rated control supply voltage (Us) at DC - max

48 V

Rated control supply voltage (Us) at DC - min

48 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 DC

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