

Specifications



Photo is representative



Eaton 189733

Eaton Moeller series NZM Undervoltage release for NZM2/3, configurable relays, 2NO, 1 early-make auxiliary contact, 1NO, 24DC, Push-in terminals

General specifications

PRODUCT NAME	Eaton Moeller series NZM Undervoltage release
CATALOG NUMBER	189733
MODEL CODE	NZM2/3-XUHIV2A24DC
EAN	4015081877287
PRODUCT LENGTH/DEPTH	115 mm
PRODUCT HEIGHT	65 mm
PRODUCT WIDTH	75 mm
PRODUCT WEIGHT	0.08 kg
COMPLIANCES	UL/CSA IEC RoHS conform
CERTIFICATIONS	CSA (Class No. 1437-01) IEC60947 UL489 CSA certified CSA (File No. 22086) CE marking UL (File No. E140305) UL (Category Control Number DIHS) UL listed CSA-C22.2 No. 5-09

Delivery programme

FITTED WITH: Early-make auxiliary contact and 2 relays

FRAME NZM2/3

SPECIAL FEATURES

- For interlock circuits, load-shedding circuits, make-before-break interruption of shunt trip for primary breaker use
- Instantaneous shut-off NZM breaker at control voltage below 35-70% Us
- For emergency-stop devices with an emergency-stop button
- For breaker's signaling commands/different states
- 2 relays/unit
- Trip unit config of activation criteria
- Config by communication/breaker display/front USB port/Eaton Power Xpert Protection Manager
- Switched off under-voltage trip: accidental contact with breaker's primary contacts is prevented when switched on
- Auxiliary contact make-before-break activation when manual switching on and off: ~20 ms(NZM2/3)/90 ms(NZM4)

SUITABLE FOR Motor safety switch
Off-load switch

TYPE Undervoltage release with early-make auxiliary contact and two relays

USED WITH PXR20(25) NZM3(-4)-..X...
PXR20(25) NZM2(-4)-..X...

Design verification to IEC/EN 61439

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

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

Does not apply, since the

AGAINST ELECTRIC SHOCK	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.

Technical data - electrical

**DROP-OUT VOLTAGE OF
UNDervOLTAGE RELEASE** 0.7 x Us
AC/DC - MAX

**DROP-OUT VOLTAGE OF
UNDervOLTAGE RELEASE** 0.35 x Us
AC/DC - MIN

**ELECTRIC CONNECTION
TYPE** Screw connection

**MINIMUM COMMAND
TIME - MAX** 15 ms

**MINIMUM COMMAND
TIME - MIN** 10 ms

**OVERVOLTAGE
CATEGORY** II

**PICK-UP POWER
CONSUMPTION AT AC
(UNDervOLTAGE
RELEASE)** 1.5 VA

**PICK-UP POWER
CONSUMPTION AT DC
(UNDervOLTAGE
RELEASE)** 0.8 W

POLLUTION DEGREE 2

POWER CONSUMPTION 0.8 W (DC)
1.5 VA (AC)

**RATED CONTROL SUPPLY
VOLTAGE (US) AT DC -
MAX** 24 V

**RATED CONTROL SUPPLY
VOLTAGE (US) AT DC -
MIN** 24 V

**RATED CONTROL
VOLTAGE (RELAY
CONTACTS)** 240 V AC
24 V DC
24 V AC

**RATED IMPULSE
WITHSTAND VOLTAGE
(UIMP)** 4 kV AC

**RATED INSULATION
VOLTAGE (UI)** 250 V

**RATED OPERATIONAL
CURRENT** 1 A (230 V AC-1, relay
contacts)
1 A (24 V AC-1, relay
contacts)
1 A (110 V AC-1, relay
contacts)
1 A (24 V DC-1, relay
contacts)

REACTION TIME 19 ms

**SWITCHING CAPACITY
(REFERENCE VALUE) -
MIN** 0.1 mA / 0.1 VDC

Technical data - mechanical

CONNECTION TYPE With push in terminal

**NUMBER OF
CONTACTS (CHANGE-
OVER CONTACTS)** 0

**NUMBER OF
CONTACTS
(NORMALLY CLOSED
CONTACTS)** 0

**NUMBER OF
CONTACTS
(NORMALLY OPEN
CONTACTS)** 3

NUMBER OF RELAYS 2

SPECIAL FEATURES

- For interlock circuits, load-shedding circuits, make-before-break interruption of shunt trip for primary breaker use
- Instantaneous shut-off NZM breaker at control voltage below 35-70% Us
- For emergency-stop devices with an emergency-stop button
- For breaker's signaling commands/different states
- 2 relays/unit
- Trip unit config of activation criteria
- Config by communication/breaker display/front USB port/Eaton Power Xpert Protection Manager
- Switched off under-voltage trip: accidental contact with breaker's primary contacts is prevented when switched on
- Auxiliary contact make-before-break activation when manual switching on and off: ~20 ms(NZM2/3)/90 ms(NZM4)

STRIP LENGTH 8 mm (relay contact connection)

VOLTAGE TOLERANCE - MAX	1.1
VOLTAGE TOLERANCE - MIN	0.85
VOLTAGE TYPE	AC

Technical data - mechanical - terminals

TERMINAL CAPACITY (SOLID CABLE)	0.2 mm ² - 1.5 mm ² (1x) at shunt release 0.2 mm ² - 1.5 mm ² (1x) for undervoltage release
TERMINAL CAPACITY (STRANDED CABLE)	0.25 mm ² - 0.75 mm ² (1x) for undervoltage release with uninsulated end sleeve in accordance with DIN46228 / 1 0.25 mm ² - 0.75 mm ² (1x) for undervoltage release 0.25 mm ² - 1.5 mm ² (1x) for undervoltage release with insulated end sleeve in accordance with DIN46224 / 4 0.25 mm ² - 1.5 mm ² (1x) at shunt release 24 - 16 AWG (1x) at shunt release 0.25 mm ² - 1.5 mm ² (1x) for undervoltage release 24 - 16 AWG (1x) for undervoltage release

Resources

BROCHURES	eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf eaton-digital-nzm-brochure-br013003en-en-us.pdf
CATALOGUES	eaton-digital-nzm-catalog-ca013003en-en-us.pdf
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
WIRING DIAGRAMS	eaton-circuit-breaker-nzm-mccb-wiring-diagram-002.eps eaton-circuit-breaker-nzm-mccb-wiring-diagram.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

