

Specifications



Photo is representative



Eaton 189740

Eaton Moeller series NZM Shunt release for NZM2/3, configurable relays, 2NO, 24AC/DC, Push-in terminals

General specifications

PRODUCT NAME	Eaton Moeller series NZM Shunt release
CATALOG NUMBER	189740
MODEL CODE	NZM2/3-XA2A24AC/DC
EAN	4015081877355
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	UL (File No. E140305) CSA-C22.2 No. 5-09 IEC60947 CSA (File No. 22086) CSA certified UL listed CSA (Class No. 1437-01) UL (Category Control Number DIHS) UL489 CE marking



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Delivery programme

FRAME

NZM2/3

SPECIAL FEATURES

- The breakers are actuated by a voltage pulse or by applying a no-break current.
- For signaling commands or different states of the circuit-breaker.
- Two relays per unit.
- The activation criteria can be configured in the trip unit.
- Configuration via communication or circuit breaker display or front USB port and Eaton Power Xpert Protection Manager.
- If the shunt trip is live, contact with the circuit breaker's primary contacts is prevented when switched on.
- Only for use in combination with circuit-breakers with electronic trips.
- Shunt trip relay modules cannot be installed simultaneously with make-before-break auxiliary contact NZM...-XHIV, under-voltage trip NZM...-XU... or shunt trip NZM...-XA.
- Relay coil is controlled by trip unit.
- Relay contacts for control wiring.
- Relays can be used for controlling remote operator with $U_s=208-204$ V AC.
- Control wiring on

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.

	push-in clamps. • Cannot be used with the PXR10 NZM-AX electronic trip.
SUITABLE FOR	Motor safety switch Off-load switch
TYPE	• Accessory • Shunt release • Shunt release with two relays
USED WITH	PXR20(25) NZM2(-4)-..X... PXR20(25) NZM3(-4)-..X...

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.

Technical data - electrical

ELECTRIC CONNECTION TYPE	Spring clamp connection
MINIMUM COMMAND TIME - MAX	15 ms
MINIMUM COMMAND TIME - MIN	10 ms
OVERVOLTAGE CATEGORY	III
PICK-UP POWER CONSUMPTION (SHUNT RELEASE)	2.5 VA/W
POLLUTION DEGREE	2
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
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)	24 V AC 24 V DC 240 V AC
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV AC
RATED INSULATION VOLTAGE (UI)	250 V
RATED OPERATIONAL CURRENT	1 A (110 V AC-1, relay contacts) 1 A (230 V AC-1, relay contacts) 1 A (24 V AC-1, relay contacts)
REACTION TIME	20 ms
SWITCHING CAPACITY (REFERENCE VALUE) - MIN	0.1 mA / 0.1 VDC
TIME ON DUTY - MAX	∞
VOLTAGE RATING	0.7 - 1.1 x Us

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)	2
NUMBER OF RELAYS	2
SPECIAL FEATURES	- The breakers are actuated by a voltage pulse or by applying a no-break current. - For signaling commands or different states of the circuit-breaker. - Two relays per unit. - The activation criteria can be configured in the trip unit. - Configuration via communication or circuit breaker display or front USB port and Eaton Power Xpert Protection Manager. - If the shunt trip is live, contact with the circuit breaker's primary contacts is prevented when switched on. - Only for use in combination with circuit-breakers with electronic trips. - Shunt trip relay modules cannot be installed simultaneously with make-before-break auxiliary contact NZM...-XHIV, under-voltage trip NZM...-XU... or shunt trip NZM...-

VOLTAGE RATING AT AC (X US) - MAX	1.1
VOLTAGE RATING AT AC (X US) - MIN	0.7
VOLTAGE TYPE	AC/DC

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) at shunt release (uninsulated ferrule according to DIN46228 / 1) 24 - 16 AWG (1x) for undervoltage release 0.25 mm ² - 1.5 mm ² (1x) at shunt release (insulated ferrule according to 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

XA.

- Relay coil is controlled by trip unit.
- Relay contacts for control wiring.
- Relays can be used for controlling remote operator with $U_s=208-204$ V AC.
- Control wiring on push-in clamps.
- Cannot be used with the PXR10 NZM-AX electronic trip.

STRIP LENGTH

8 mm (relay contact connection)

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-shunt-release-nzm-shunt-release-wiring-diagram.eps

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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