Specifications

Eaton 189740

Catalog Number: 189740

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



General specifications

Product Name
Eaton Moeller series NZM release

Catalog Number
189740

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

Powering Business Worldwide

Product specifications

Used with

PXR20(25) NZM2(-4)-..X…
PXR20(25) NZM3(-4)-..X…

Type

Accessory
Shunt release
Shunt release with two relays

Special features

The breakers are actuated by a voltage pulse or by applying a no-break current.
For signalizing 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

Resources

Brochures

eaton-digital-nzm-brochure-br013003en-en-us.pdf

eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf

Catalogs

eaton-digital-nzm-catalog-ca013003en-en-us.pdf

Declarations of conformity

DA-DC-03_NZM2

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

controlling remote operator
with Us=208-204 V AC.
Control wiring on push-in
clamps.
Cannot be used with the
PXR10 NZM-AX electronic
trip.

Voltage rating

0.7 - 1.1 x Us

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 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

Spring clamp connection

Frame

NZM2/3

Pollution degree

2

Minimum command time - max

15 ms

Minimum command time - min

10 ms

Number of contacts (normally open contacts)

2

Number of relays

2

Reaction time

20 ms

Pick-up power consumption (shunt release)

2.5 VA/W

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 insulation voltage (Ui)

250 V

Strip length

8 mm (relay contact connection)

Switching capacity (reference value) - min

0.1 mA / 0.1 VDC

Rated impulse withstand voltage (Uimp)

4 kV AC

Suitable for

Motor safety switch

Off-load switch

Connection type

With push in terminal

Voltage type

AC/DC

Overvoltage category

III

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)

Rated control supply voltage (Us) at DC - max

24 V

Rated control supply voltage (Us) at DC - min

24 V

Voltage rating at AC (x Us) - max

1.1

Voltage rating at AC (x Us) - min

.7

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

Terminal capacity (stranded cable)

0.25 mm² - 0.75 mm² (1x) at shunt release (uninsulated ferrule according to DIN46228 / 1)
24 - 16 AWG (1x) for undervoltage release
0.25 mm² - 1.5 mm² (1x) at shunt release (insulated ferrule according to DIN46224 / 4)
0.25 mm² - 1.5 mm² (1x) at shunt release
24 - 16 AWG (1x) at shunt release
0.25 mm² - 1.5 mm² (1x) for undervoltage release

Terminal capacity (solid cable)

0.2 mm² - 1.5 mm² (1x) at shunt release
0.2 mm² - 1.5 mm² (1x) for undervoltage release

Time on duty - max

∞

Rated control voltage (relay contacts)

24 V AC
24 V DC
240 V AC



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