Specifications

Eaton 189733

Catalog Number: 189733

Eaton Moeller series NZM - Molded Case Circuit Breaker. 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 release

Catalog Number
189733

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

Powering Business Worldwide

Product specifications

Used with

PXR20(25) NZM3(-4)-..X…

PXR20(25) NZM2(-4)-..X…

Type

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

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 signalizing 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) For use with electronic trip breakers except NZM...-XR... Under-voltage trip relay modules incompatbile with NZM...-XHIV, NZM...-XU..., NZM...-XA. Trip unit controlled relay coil Push-in clamp relay contacts for control wiring. Relays use for controlling remote operator at Us=208-204 V AC Incompatible with PXR10 NZM-AX

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.

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.eps

eaton-circuit-breaker-nzm-mccb-wiring-diagram-002.eps

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:

Early-make auxiliary contact and 2 relays

Frame

NZM2/3

Pollution degree

2

Minimum command time - max

15 ms

Minimum command time - min

10 ms

Number of contacts (normally open contacts)

3

Number of relays

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 (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

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

Drop-out voltage of undervoltage release AC/DC - max

0.7 x Us

Overvoltage category

II

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)

Drop-out voltage of undervoltage release AC/DC - min

0.35 x Us

Power consumption

0.8 W (sealing DC)

1.5 VA (sealing AC)

Rated control supply voltage (Us) at DC - max

24 V

Rated control supply voltage (Us) at DC - min

24 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

Terminal capacity (stranded cable)

0.25 mm² - 0.75 mm² (1x) for undervoltage release with uninsulated end sleeve in accordance with DIN46228 / 1

0.25 mm² - 0.75 mm² (1x) for undervoltage release

0.25 mm² - 1.5 mm² (1x) for undervoltage release with insulated end sleeve in accordance with 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

24 - 16 AWG (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

Rated control voltage (relay contacts)

240 V AC

24 V DC

24 V AC

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