Specifications

Eaton 104613

Catalog Number: 104613

Eaton Moeller series NZM - Molded Case Circuit Breaker. Earth-fault release, 300mA, 4p, bottom



General specifications

Product Name
Eaton Moeller series NZM release

Catalog Number
104613

EAN
4015081044238

Product Length/Depth
180 mm

Product Height
80 mm

Product Width
120 mm

Product Weight
0.9 kg

Compliances
IEC
RoHS conform

Certifications
IEC/EN 60947-2
IEC/EN 60947-2 annex B

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Product specifications

Used with

Four-pole
NZM1-4
N1-4

Type

Accessory
Earth-fault releases

Special features

Earth-fault release to
IEC/EN 60947-2
not UL/CSA approved
Suitable for use in three-phase systems
Pulse-current sensitive type
A according to core-balance principle
For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors
Supply voltage-dependent
Ue = 200 – 415 V 50/60 Hz
Control knobs, sealable.
Bottom mounting up to 100 A

Application

In three-phase systems

Voltage rating

200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage)

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.

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_NZM1

Drawings

eaton-circuit-breaker-release-nzm-earth-fault-release-dimensions.eps

eaton-circuit-breaker-release-nzm-earth-fault-release-3d-drawing-002.eps

eaton-circuit-breaker-symbol-nzm-earth-fault-release-symbol.eps

eCAD model

ETN.104613.edz

Installation instructions

eaton-residual-current-module-mount-below-nzm1-il01219027z.pdf

Installation videos

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

mCAD model

DA-CS-nzm1_4_xfi

DA-CD-nzm1_4_xfi

Technical data sheets

eaton-nzm-technical-information-sheet

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.

Frame

NZM1

45 mm

Frequency rating

50 Hz / 60 Hz

Mounting Method

Bottom

Ambient operating temperature - max

40 °C

Ambient operating temperature - min

-5 °C

Current rating - max

100 A

Power on-delay time - max

300 ms

Power on-delay time - min

300 ms

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

415 V

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

200 V

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

415 V

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

200 V

Rated control supply voltage (Us) at DC - max

0 V

Current rating - min

15 A

Degree of protection

IP20 (operating component area)

Mounting position

Vertical and 90° in all directions

Lifespan, mechanical

20000 operations

Fault current detection range

50/60 Hz

Number of poles

Four-pole

Terminal capacity (solid/flexible conductor)

As NZM1 standard terminal with ferrules

As NZM1 standard terminal without ferrules

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Rated control supply voltage (Us) at DC - min

0 V

Rated fault current - max

0.3 A

Rated fault current - min

0.3 A

Rated operating voltage (Ue) - max

415 V

Sensitivity type

Pulse-current sensitive as per core-balance principle (type A)

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