## Eaton 265815

### Catalog Number: 265815

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 63A, N, frame 1, 4-A63

#### General specifications



Eaton Moeller series NZM molded case

circuit breaker thermo-magnetic

Model Code

NZMN1-4-A63

Product Length/Depth

Catalog Number

EAN

4015082658151

Product Height

145 mm

Product Width

120 mm

84.5 mm

**Product Weight** 

1.318 kg

Compliances

RoHS conform

Certifications

IEC

IEC/EN 60947





#### defaultTaxonomyAttributeLabel

#### Type

Circuit breaker

#### Special features

Maximum back-up fuse, if

the expected short-circuit

currents at the installation

location exceed the

switching capacity of the

circuit breaker (Rated short-

circuit breaking capacity Icn)

Rated current = rated

uninterrupted current: 63 A

Set value in neutral

conductor is synchronous

with set value Ir of main

pole.

Terminal capacity hint: Up to

95 mm<sup>2</sup> can be connected

depending on the cable

manufacturer.

#### Application

Use in unearthed supply systems at 690 V

#### Amperage Rating

63 A

#### Voltage rating

690 V - 690 V

#### Circuit breaker frame type

NZM1

#### Features

Protection unit

#### 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  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ 

#### Resources

#### **Brochures**

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

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

#### Catalogs

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

#### Certification reports

DA-DC-03\_N1

#### Characteristic curve

eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve-002.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve-051.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve.eps

#### **Drawings**

eaton-circuit-breaker-switch-nzm-mccb-dimensions-014.eps eaton-circuit-breaker-nzm-mccb-dimensions-018.eps

#### eCAD model

ETN.265815.edz

DA-CE-ETN.NZMN1-4-A63

#### Installation instructions

eaton-cirucit-breaker-switch-disconnector-nzmb-il01203004z.pdf

#### Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

#### mCAD model

DA-CS-nzml\_4p

DA-CD-nzm1\_4p

#### Technical data sheets

eaton-nzm-technical-information-sheet

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.

#### Pollution degree

3

#### Mounting Method

Built-in device fixed built-in technique DIN rail (top hat rail) mounting optional Fixed

#### Climatic proofing

Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

#### Equipment heat dissipation, current-dependent

14.17 W

#### **Utilization category**

A (IEC/EN 60947-2)

#### Isolation

300 V AC (between the auxiliary contacts)
500 V AC (between auxiliary contacts and main contacts)

#### Ambient operating temperature - max

70 °C

#### Ambient operating temperature - min

-25 °C

#### Ambient storage temperature - max

70 °C

#### Ambient storage temperature - min

40 °C

#### Number of auxiliary contacts (change-over contacts)

0

#### Number of auxiliary contacts (normally closed contacts)

0

#### Number of auxiliary contacts (normally open contacts)

0

#### Protection against direct contact

Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part

#### Degree of protection

IP20

IP20 (basic degree of protection, in the operating controls area)

#### Direction of incoming supply

As required

#### Electrical connection type of main circuit

Frame clamp

#### Current rating of neutral conductor

200% of phase conductor

#### Lifespan, mechanical

20000 operations

#### Overvoltage category

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#### Degree of protection (IP), front side

IP66 (with door coupling rotary handle)

IP40 (with insulating surround)

#### Degree of protection (terminations)

IP10 (tunnel terminal)

IP00 (terminations, phase isolator and strip terminal)

#### Number of poles

Four-pole

#### Terminal capacity (copper strip)

Max. 9 segments of 9 mm x 0.8 mm at box terminal

Min. 2 segments of 9 mm x 0.8 mm at box terminal

#### Lifespan, electrical

7500 operations at 690 V AC-1

10000 operations at 400 V AC-1

10000 operations at 415 V AC-1

#### **Functions**

System and cable protection

#### Shock resistance

20 g (half-sinusoidal shock 20 ms)

#### Position of connection for main current circuit

Front side

#### Rated operational current for specified heat dissipation (In)

63 A

#### Power loss

14.2 W

#### Release system

Thermomagnetic release

#### Short-circuit total breaktime

< 10 ms

#### Short-circuit release non-delayed setting - max

630 A

#### Short-circuit release non-delayed setting - min

378 A

#### Terminal capacity (control cable)

0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (1x)

0.75 mm<sup>2</sup> - 1.5 mm<sup>2</sup> (2x)

#### Terminal capacity (copper busbar)

Min. 12 mm x 5 mm direct at switch rear-side connection

M6 at rear-side screw connection

Max. 16 mm x 5 mm direct at switch rear-side connection

#### Terminal capacity (copper solid conductor/cable)

10 mm<sup>2</sup> - 16 mm<sup>2</sup> (1x) at box terminal

10 mm<sup>2</sup> - 16 mm<sup>2</sup> (1x) direct at switch rear-side connection

6 mm<sup>2</sup> - 16 mm<sup>2</sup> (2x) at box terminal

6 mm<sup>2</sup> - 16 mm<sup>2</sup> (2x) direct at switch rear-side connection

16 mm<sup>2</sup> (1x) at tunnel terminal

#### Terminal capacity (aluminum solid conductor/cable)

16 mm<sup>2</sup> (1x) at tunnel terminal

10 mm<sup>2</sup> - 16 mm<sup>2</sup> (1x) direct at switch rear-side connection

10 mm<sup>2</sup> - 16 mm<sup>2</sup> (2x) direct at switch rear-side connection

#### Terminal capacity (copper stranded conductor/cable)

10 mm<sup>2</sup> - 70 mm<sup>2</sup> (1x) at box terminal

6 mm<sup>2</sup> - 25 mm<sup>2</sup> (2x) at box terminal

25 mm<sup>2</sup> - 95 mm<sup>2</sup> (1x) at 1-hole tunnel terminal

25 mm<sup>2</sup> (2x) direct at switch rear-side connection

10 mm<sup>2</sup> - 70 mm<sup>2</sup> (1x) direct at switch rear-side connection

#### Terminal capacity (aluminum stranded conductor/cable)

25 mm<sup>2</sup> - 95 mm<sup>2</sup> (1x) at tunnel terminal

25 mm<sup>2</sup> - 35 mm<sup>2</sup> (2x) direct at switch rear-side connection

25 mm<sup>2</sup> - 35 mm<sup>2</sup> (1x) direct at switch rear-side connection

#### Handle type

Rocker lever

#### Short delay current setting (Isd) - max

0 A

#### Short delay current setting (Isd) - min

0 A

Instantaneous current setting (li) - max 10 A Instantaneous current setting (li) - min 6 A Number of operations per hour - max 120 Overload current setting (Ir) - max 63 A Overload current setting (Ir) - min 50 A Overload current setting (Ir) 50 A - 63 A Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz 85 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz 50 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz 35 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz 10 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz 7.5 kA Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz 105 kA Rated short-circuit making capacity Icm at 440 V, 50/60 Hz 74 kA Rated short-circuit making capacity Icm at 525 V, 50/60 Hz 40 kA Rated short-circuit making capacity Icm at 690 V, 50/60 Hz 17 kA Standard terminals Box terminal Optional terminals

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Connection on rear. Screw terminal. Tunnel terminal

Rated short-circuit making capacity Icm at 240 V, 50/60 Hz

187 kA

Rated impulse withstand voltage (Uimp) at auxiliary contacts

6000 V

Rated impulse withstand voltage (Uimp) at main contacts

6000 V

Rated insulation voltage (Ui)

690 V AC



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