# Eaton 265799

# Catalog Number: 265799

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuitbreaker, 4p, 40A, B, frame 1, 4-A40

# General specifications



Eaton Moeller series NZM molded case

circuit breaker thermo-magnetic

NZMB1-4-A40

**EAN** 

4015082657994

**Product Height** 

145 mm

**Product Weight** 

1.328 kg

Certifications

IEC/EN 60947

IEC

Catalog Number

265799

Model Code

Product Length/Depth

84.5 mm

**Product Width** 

120 mm

Compliances

RoHS conform



# 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: 40 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 440 V

#### Amperage Rating

40 A

#### Voltage rating

440 V - 440 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

#### 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

#### Characteristic curve

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

eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-038.eps

eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-032.eps

# **Drawings**

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

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

xEffect - Industrial Switchgear Range

#### eCAD model

DA-CE-ETN.NZMB1-4-A40

ETN.265799.edz

#### 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-CD-nzml\_4p

DA-CS-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

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

Fixed

# Climatic proofing

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

# Equipment heat dissipation, current-dependent

10.66 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

Ш

# Degree of protection (IP), front side

IP66 (with door coupling rotary handle)

IP40 (with insulating surround)

#### Degree of protection (terminations)

IP00 (terminations, phase isolator and strip terminal)

IP10 (tunnel 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 400 V AC-1

7500 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)

40 A

# Power loss

10.7 W

#### Release system

Thermomagnetic release

#### Short-circuit total breaktime

< 10 ms

Short-circuit release non-delayed setting - max

400 A

Short-circuit release non-delayed setting - min

320 A

#### Terminal capacity (control cable)

0.75 mm<sup>2</sup> - 1.5 mm<sup>2</sup> (2x) 0.75 mm<sup>2</sup> - 2.5 mm<sup>2</sup> (1x)

#### Terminal capacity (copper busbar)

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

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

M6 at rear-side screw connection

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

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

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

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) direct at switch rear-side connection

# 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> (2x) direct at switch rear-side connection

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

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

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

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

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

### 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 8 A Number of operations per hour - max 120 Overload current setting (Ir) - max 40 A Overload current setting (Ir) - min 32 A Overload current setting (Ir) 32 A - 40 A Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz 30 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz 25 kA Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz 18.5 kA Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz 53 kA Rated short-circuit making capacity Icm at 440 V, 50/60 Hz 53 kA Standard terminals Box terminal Optional terminals Connection on rear. Screw terminal. Tunnel terminal Rated short-circuit making capacity Icm at 240 V, 50/60 Hz 63 kA Rated impulse withstand voltage (Uimp) at auxiliary contacts Rated impulse withstand voltage (Uimp) at main contacts 6000 V Rated insulation voltage (Ui) 690 V AC



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