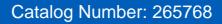
# Eaton 265768



Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 630A, busbar terminal for CU N, frame 4, VE630

# General specifications



circuit breaker electronic

EAN

4015082657680

Product Length/Depth Product Height

401 mm 207 mm

Product Width Product Weight

210 mm 15.52 kg

Compliances Certifications

RoHS conform IEC/EN 60947

IEC





# Product specifications

#### 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)

R.m.s. value measurement

and "thermal memory"

Adjustable time delay setting

to overcome current peaks tr

at 6 x Ir also infinity (without

overload releases)

Adjustable delay time tsd

i2t constant function:

switchable

Rated current = rated

uninterrupted current: 630 A

#### **Application**

Use in unearthed supply systems at 525 V

# Amperage Rating

630 A

# Voltage rating

690 V - 690 V

# Circuit breaker frame type

NZM4

# **Features**

Protection unit

Motor drive optional

# 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.

### Resources

#### Brochures

eaton-digital-nzm-brochure-br 013003 en-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-048.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve-049.eps

# Declarations of conformity

DA-DC-03\_N4

#### **Drawings**

eaton-circuit-breaker-nzm-mccb-dimensions-022.eps

#### eCAD model

ETN.265768.edz

#### Installation instructions

eaton-circuit-breaker-basic-unit-nzmn4-il01210010z.pdf

#### Installation videos

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

#### mCAD model

DA-CD-nzm4\_3p

DA-CS-nzm4\_3p

#### Technical data sheets

eaton-nzm-technical-information-sheet

#### 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.

#### Pollution degree

3

# Mounting Method

Fixed

Built-in device fixed built-in technique

#### Climatic proofing

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

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

# Equipment heat dissipation, current-dependent

65 W

# Utilization category

B (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 110

#### Degree of protection

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

#### Direction of incoming supply

As required

# Electrical connection type of main circuit

Screw connection

#### Lifespan, mechanical

10000 operations

#### Overvoltage category

Ш

# Degree of protection (IP), front side

IP40 (with insulating surround)

IP66 (with door coupling rotary handle)

#### Degree of protection (terminations)

IP00 (terminations, phase isolator and strip terminal)
IP10 (tunnel terminal)

#### Number of poles

Three-pole

# Terminal capacity (copper strip)

Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal 10 segments of 80 mm x 1 mm (2x) at rear-side width extension Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)

Min. 5 segments of 25 mm x 1 mm at rear-side connection (punched)

10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal

# Lifespan, electrical

3000 operations at 400 V AC-1

1000 operations at 690 V AC-3

2000 operations at 690 V AC-1

2000 operations at 415 V AC-3

2000 operations at 400 V AC-3

3000 operations at 415 V AC-1

# Functions

Systems, cable, selectivity and generator protection

#### Shock resistance

15 g (half-sinusoidal shock 11 ms)

Position of connection for main current circuit

Front side

Rated operational current for specified heat dissipation (In)

630 A

Release system

Electronic release

Short-circuit total breaktime

< 25 ms ( 415 V); < 35 ms (> 415 V)

Rated short-time withstand current (t = 0.3 s)

12 kA

Rated short-time withstand current (t = 1 s)

12 kA

Short-circuit release delayed setting - max

6300 A

Short-circuit release delayed setting - min

630 A

Short-circuit release non-delayed setting - max

11340 A

Short-circuit release non-delayed setting - min

1260 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)

Min. 25 mm x 5 mm direct at switch rear-side connection

Max. 50 mm x 10 mm (2x) direct at switch rear-side connection

Min. 25 mm x 5 mm at rear-side 1-hole module plate

Min. 60 mm x 10 mm at rear-side width extension

Max. 80 mm x 10 mm (2x) at rear-side width extension

50 mm x 10 mm (2x) at rear-side 2-hole module plate

Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate

M10 at rear-side screw connection

# Terminal capacity (copper solid conductor/cable)

120 mm<sup>2</sup> - 300 mm<sup>2</sup> (1x) at rear-side 1-hole module plate

95 mm<sup>2</sup> - 240 mm<sup>2</sup> (6x) at rear-side width extension

95 mm<sup>2</sup> - 185 mm<sup>2</sup> (2x) at rear-side 2-hole module plate

95 mm² - 300 mm² (2x) at rear-side 1-hole module plate

50 mm<sup>2</sup> - 240 mm<sup>2</sup> (4x) at 4-hole tunnel terminal

35 mm<sup>2</sup> - 185 mm<sup>2</sup> (4x) at rear-side 2-hole module plate 300 mm<sup>2</sup> (4x) at rear-side width extension

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

70 mm<sup>2</sup> - 185 mm<sup>2</sup> (2x) at rear-side 1-hole module plate

50 mm<sup>2</sup> (4x) at rear-side 2-hole module plate

240 mm<sup>2</sup> (2x) at rear-side width extension

70 mm<sup>2</sup> - 240 mm<sup>2</sup> (6x) at rear-side width extension

185 mm<sup>2</sup> - 240 mm<sup>2</sup> (1x) at rear-side 1-hole module plate

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

50 mm<sup>2</sup> - 185 mm<sup>2</sup> (4x) direct at switch rear-side connection

120 mm<sup>2</sup> - 185 mm<sup>2</sup> (1x) direct at switch rear-side connection

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

50 mm<sup>2</sup> - 240 mm<sup>2</sup> (4x) at 4-hole tunnel terminal

#### Handle type

Rocker lever

Short delay current setting (Isd) - max

6300 A

Short delay current setting (Isd) - min

630 A

Instantaneous current setting (li) - max

7560 A

Instantaneous current setting (Ii) - min

1260 A

Number of operations per hour - max

60

Overload current setting (Ir) - max

630 A

Overload current setting (Ir) - min

315 A

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60~Hz

37 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz

37 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz

26 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60~Hz

19 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz

15 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

53 kA

Rated short-circuit making capacity Icm at 690 V, 50/60 Hz

40 kA

Standard terminals

Screw terminal

Optional terminals

Connection on rear. Strip terminal. Tunnel terminal

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

105 kA

Rated impulse withstand voltage (Uimp) at auxiliary contacts

6000 V

Rated impulse withstand voltage (Uimp) at main contacts

8000 V

Rated insulation voltage (Ui)

1000 V AC



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