Specifications

# Eaton 265987



## Catalog Number: 265987

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 800A, H4-4-VE800

### General specifications

**Product Name**
Eaton Moeller series NZM molded case circuit breaker electronic

**Catalog Number**
265987

**EAN**
4015082659875

**Product Length/Depth**
401 mm

**Product Height**
207 mm

**Product Width**
280 mm

**Product Weight**
27 kg

**Compliances**
RoHS conform

**Certifications**
IEC
IEC/EN 60947

Powering Business Worldwide

## 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
$i^2t$ constant function: switchable
Set value in neutral conductor is synchronous with set value Ir of main pole.
Rated current = rated uninterrupted current: 800 A

### Application

Use in unearthed supply systems at 690 V

### Amperage Rating

800 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.

## 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-049.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve-048.eps

### Drawings

eaton-circuit-breaker-nzm-mccb-dimensions-023.eps

### eCAD model

ETN.265987.edz

### Installation instructions

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

### Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

### mCAD model

DA-CD-nzm4_4p

DA-CS-nzm4_4p

### Technical data sheets

eaton-nzm-technical-information-sheet

### 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.

### 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

Fixed

### Climatic proofing

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

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

### Equipment heat dissipation, current-dependent

79 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

Current rating of neutral conductor

200% of phase conductor

Lifespan, mechanical

10000 operations

Overvoltage category

III

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

Four-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
10 segments of 50 mm x 1 mm (2x) at 1-hole module plate
Min. 5 segments of 25 mm x 1 mm at rear-side connection (punched)
Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)
Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal

Lifespan, electrical

2000 operations at 400 V AC-3
3000 operations at 400 V AC-1
2000 operations at 690 V AC-1
3000 operations at 415 V AC-1

2000 operations at 415 V AC-3

1000 operations at 690 V AC-3

### 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)

800 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)

19.2 kA

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

19.2 kA

### Short-circuit release delayed setting - max

8000 A

### Short-circuit release delayed setting - min

800 A

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

9600 A

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

1600 A

### Terminal capacity (control cable)

0.75 mm² - 1.5 mm² (2x)

0.75 mm² - 2.5 mm² (1x)

### Terminal capacity (copper busbar)

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

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

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

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

M10 at rear-side screw connection

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

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

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

95 mm² - 240 mm² (6x) at rear-side width extension

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

300 mm² (4x) at rear-side width extension

35 mm² - 185 mm² (4x) at rear-side 2-hole module plate

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

50 mm² - 240 mm² (4x) at 4-hole tunnel terminal

95 mm² - 185 mm² (2x) at rear-side 2-hole module plate

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

70 mm² - 240 mm² (6x) at rear-side width extension

50 mm² (4x) at rear-side 2-hole module plate

185 mm² - 240 mm² (1x) at rear-side 1-hole module plate

240 mm² (2x) at rear-side width extension

70 mm² - 185 mm² (2x) at rear-side 1-hole module plate

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

120 mm² - 185 mm² (1x) direct at switch rear-side connection

50 mm² - 185 mm² (4x) direct at switch rear-side connection

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

50 mm² - 240 mm² (4x) at 4-hole tunnel terminal

### Handle type

Rocker lever

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

8000 A

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

800 A

### Instantaneous current setting (Ii) - max

9600 A

### Instantaneous current setting (Ii) - min

1600 A

### Number of operations per hour - max

60

### Overload current setting (Ir) - max

800 A

### Overload current setting (Ir) - min

400 A

### Overload current setting (Ir)

400 A - 800 A

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

63 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

50 kA

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

50 kA

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

37 kA

Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz

187 kA

Rated short-circuit making capacity Icm at 440 V, 50/60 Hz

187 kA

Rated short-circuit making capacity Icm at 525 V, 50/60 Hz

143 kA

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

100 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

275 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




Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2024 Eaton. All Rights Reserved.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.



Eaton.com/socialmedia