

# Eaton 259093

Catalog Number: 259093

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 200A, N, frame2, A200



Photo is representative

## General specifications

Product Name	Catalog Number
Eaton Moeller series NZM molded case circuit breaker thermo-magnetic	259093
Model Code	NZMN2-A200
EAN	Product Length/Depth
4015082590932	149 mm
Product Height	Product Width
184 mm	105 mm
Product Weight	Compliances
2.343 kg	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  $I_{cn}$ )  
Rated current = rated uninterrupted current: 200 A

### Application

Use in unearthing supply systems at 690 V

### Amperage Rating

200 A

### Voltage rating

690 V - 690 V

### Circuit breaker frame type

NZM2

### Features

Motor drive optional

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 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.

## 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](#)

### Certification reports

[DA-DC-03\\_N2](#)

### Characteristic curve

[eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-036.eps](#)

[eaton-circuit-breaker-nzm-mccb-characteristic-curve-050.eps](#)

[eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve-004.eps](#)

### Drawings

[eaton-circuit-breaker-nzm-mccb-dimensions-019.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-3d-drawing.eps](#)

### eCAD model

[ETN.NZMN2-A200](#)

[ETN.259093.edz](#)

### Installation instructions

[eaton-circuit-breakers-nzm2-basic-device-bg2-instruction-leaflet-il01206006z.pdf](#)

### Installation videos

[Introduction of the new digital circuit breaker NZM](#)

[The new digital NZM Range](#)

### mCAD model

[DA-CS-nzm2\\_3p](#)

[DA-CD-nzm2\\_3p](#)

### Technical data sheets

[eaton-nzm-technical-information-sheet](#)

#### 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

Fixed

Built-in device fixed built-in technique

**Climatic proofing**

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

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

**Equipment heat dissipation, current-dependent**

48 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

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**

20000 operations

**Overvoltage category**

III

**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**

Three-pole

**Terminal capacity (copper strip)**

Max. 10 segments of 16 mm x 0.8 mm at box terminal

Max. 10 segments of 24 mm x 0.8 mm at rear-side connection  
(punched)

Max. 8 segments of 24 mm x 1 mm (2x) at box terminal

Min. 2 segments of 16 mm x 0.8 mm at rear-side connection  
(punched)

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

**Lifespan, electrical**

10000 operations at 400 V AC-1

6500 operations at 400 V AC-3

7500 operations at 500 V DC-1

3000 operations at 500 V DC-3

7500 operations at 750 V DC-1

10000 operations at 415 V AC-1

5000 operations at 690 V AC-3

6500 operations at 415 V AC-3

3000 operations at 750 V DC-3

7500 operations at 690 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)**

200 A

**Power loss**

48 W

**Release system**

Thermomagnetic release

**Short-circuit total breaktime**

< 10 ms

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

1.9 kA

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

1.9 kA

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

2000 A

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

1200 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. 16 mm x 5 mm direct at switch rear-side connection

M8 at rear-side screw connection

Max. 24 mm x 8 mm direct at switch rear-side connection

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

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

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

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

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

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

25 mm<sup>2</sup> - 185 mm<sup>2</sup> (1x) at box terminal

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

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

25 mm<sup>2</sup> - 185 mm<sup>2</sup> (1x) at 1-hole tunnel terminal

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

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

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

25 mm<sup>2</sup> - 50 mm<sup>2</sup> (1x) direct at switch rear-side connection

25 mm<sup>2</sup> - 185 mm<sup>2</sup> (1x) at tunnel terminal

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

2000 A

Instantaneous current setting (li) - min

1200 A

Number of operations per hour - max

120

Overload current setting (Ir) - max

200 A

Overload current setting (Ir) - min

160 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 500 V DC

7.5 kA

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

25 kA

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

5 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 750 V DC

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  $I_{cm}$  at 525 V, 50/60 Hz

53 kA

Rated short-circuit making capacity  $I_{cm}$  at 690 V, 50/60 Hz

40 kA

#### Standard terminals

Screw terminal

#### Optional terminals

Box terminal. Connection on rear. Tunnel terminal

Rated short-circuit making capacity  $I_{cm}$  at 240 V, 50/60 Hz

187 kA

Rated impulse withstand voltage (Ui<sub>imp</sub>) at auxiliary contacts

6000 V

Rated impulse withstand voltage (Ui<sub>imp</sub>) at main contacts

8000 V

#### Voltage rating (DC)

\$row.attributeValue.cdata

Rated insulation voltage (Ui)

1000 V AC



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