

# Eaton 265777

Catalog Number: 265777

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 1600A



### General specifications

Product Name	Catalog Number
Eaton Moeller series NZM molded case circuit breaker electronic	265777
	EAN
	4015082657772
Product Length/Depth	Product Height
401 mm	207 mm
Product Width	Product Weight
210 mm	19.206 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  $I_{cn}$ )  
R.m.s. value measurement and “thermal memory”  
Adjustable time delay setting to overcome current peaks  $I_R$  at  $6 \times I_R$  also infinity (without overload releases)  
Adjustable delay time  $t_{sd}$   
 $i^2t$  constant function:  
switchable  
Rated current = rated uninterrupted current: 1600 A

### Application

Use in unearthed supply systems at 525 V

### Amperage Rating

1600 A

### Voltage rating

690 V - 690 V

### Circuit breaker frame type

NZM4

### 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.

## 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](#)

### 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-022.eps](#)

### eCAD model

[ETN.265777.edz](#)

### Installation instructions

[eaton-circuit-breaker-basic-unit-nzm4-il01210010z.pdf](#)

### Installation videos

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

### mCAD model

[DA-CS-nzm4\\_3p](#)  
[DA-CD-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

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

284 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

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

#### Direction of incoming supply

As required

#### Electrical connection type of main circuit

Screw connection

#### 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

Three-pole

#### Terminal capacity (copper strip)

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

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

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. 6 segments of 16 mm x 0.8 mm at flat conductor terminal

#### Lifespan, electrical

2000 operations at 400 V AC-3

2000 operations at 415 V AC-3

3000 operations at 415 V AC-1

1000 operations at 690 V AC-3

3000 operations at 400 V AC-1

2000 operations at 690 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)

1600 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

16000 A

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

1600 A

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

19200 A

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

3200 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)

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

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

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

M10 at rear-side screw connection

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

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

300 mm<sup>2</sup> (4x) at rear-side width extension

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

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

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

50 mm<sup>2</sup> - 240 mm<sup>2</sup> (4x) at 4-hole tunnel terminal  
95 mm<sup>2</sup> - 300 mm<sup>2</sup> (2x) at rear-side 1-hole module plate

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

70 mm<sup>2</sup> - 185 mm<sup>2</sup> (2x) at rear-side 1-hole module plate  
240 mm<sup>2</sup> (2x) at rear-side width extension  
50 mm<sup>2</sup> (4x) at rear-side 2-hole module plate  
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 (I<sub>sd</sub>) - max

16000 A

#### Short delay current setting (I<sub>sd</sub>) - min

1600 A

#### Instantaneous current setting (I<sub>i</sub>) - max

19200 A

#### Instantaneous current setting (I<sub>i</sub>) - min

3200 A

#### Number of operations per hour - max

60

#### Overload current setting (I<sub>r</sub>) - max

1600 A

#### Overload current setting (I<sub>r</sub>) - min

800 A

#### Rated short-circuit breaking capacity I<sub>cs</sub> (IEC/EN 60947) at 230 V, 50/60 Hz

63 kA

#### Rated short-circuit breaking capacity I<sub>cs</sub> (IEC/EN 60947) at 400/415 V, 50/60 Hz

50 kA

#### Rated short-circuit breaking capacity I<sub>cs</sub> (IEC/EN 60947) at 440 V, 50/60 Hz

50 kA

#### Rated short-circuit breaking capacity I<sub>cs</sub> (IEC/EN 60947) at 525 V, 50/60 Hz

50 kA

Rated short-circuit breaking capacity  $I_{cs}$  (IEC/EN 60947) at 690 V, 50/60 Hz

37 kA

Rated short-circuit making capacity  $I_{cm}$  at 400/415 V, 50/60 Hz

187 kA

Rated short-circuit making capacity  $I_{cm}$  at 440 V, 50/60 Hz

187 kA

Rated short-circuit making capacity  $I_{cm}$  at 525 V, 50/60 Hz

143 kA

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

275 kA

Rated impulse withstand voltage ( $U_{imp}$ ) at auxiliary contacts

6000 V

Rated impulse withstand voltage ( $U_{imp}$ ) at main contacts

8000 V

Rated insulation voltage ( $U_i$ )

1000 V AC



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