

# Eaton 266019

Catalog Number: 266019

Eaton Moeller series NZM - Molded Case Circuit Breaker. Switch-disconnector 3p 400A BG3



## General specifications

Product Name	Catalog Number
Eaton Moeller series NZM switch-disconnector	266019
	Model Code
	N3-400
EAN	Product Length/Depth
4015082660192	159 mm
Product Height	Product Width
275 mm	140 mm
Product Weight	Compliances
5.025 kg	RoHS conform
Certifications	
IEC/EN 60947	
IEC	

## Type

Switch-disconnector

## Special features

Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113.

Isolating characteristics to IEC/EN 60947-3 and VDE 0660.

Busbar tag shroud to VDE 0160 Part 100.

Rated current = rated uninterrupted current: 400 A

## Application

Use in unearthed supply systems at 690 V

## Amperage Rating

400 A

## Voltage rating

690 V - 690 V

## Circuit breaker frame type

N3

## Features

Version as maintenance-/service switch

Motor drive optional

Version as main switch

Version as emergency stop installation

### 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

## 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](#)

## Certification reports

[DA-DC-03\\_N3](#)

## Drawings

[eaton-circuit-breaker-nzm-mccb-dimensions-020.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-016.eps](#)

## eCAD model

[DA-CE-ETN.N3-400](#)

## Installation instructions

[IL01208009Z](#)

## Installation videos

[The new digital NZM Range](#)

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

## mCAD model

[DA-CD-nzm3\\_3p](#)

[DA-CS-nzm3\\_3p](#)

## Technical data sheets

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

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

Distribution board installation

Ground mounting

Fixed

Built-in device fixed built-in technique

Intermediate mounting

#### Climatic proofing

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

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

#### Equipment heat dissipation, current-dependent

43.2 W

#### Isolation

300 V AC (between the auxiliary contacts)

500 V AC (between auxiliary contacts and main contacts)

#### Rated short-time withstand current (Icw)

12 kA

#### Degree of protection

IP20 (basic protection type, in the area of the HMI devices)

Other

#### Direction of incoming supply

As required

#### Electrical connection type of main circuit

Screw connection

#### 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

Rated insulation voltage (Ui)

1000 V

Rated operating frequency

50 Hz

Rated operating power at AC-23, 400 V

200 kW

Rated operating power at AC-3, 400 V

0 kW

Switch positions

I, +, 0

Lifespan, mechanical

15000 operations

Overvoltage category

III

Rated operational current

630 A (415 V AC-22/23A, making and breaking capacity)

630 A (690 V AC-22/23A, making and breaking capacity)

Degree of protection (IP), front side

IP40 (with insulating surround)

IP20

IP66 (with door coupling rotary handle)

Degree of protection (terminations)

IP00 (terminations, phase isolator and band terminal)

IP10 (tunnel terminal)

Number of poles

Three-pole

Terminal capacity (copper strip)

Min. 6 segments of 16 mm x 0.8 mm at rear-side connection  
(punched)

10 segments of 50 mm x 1 mm (2x) at rear-side width extension

Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1  
mm

Min. 6 segments of 16 mm x 0.8 mm at box terminal

Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side connection (punched)

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

#### Handle color

Black

#### Lifespan, electrical

5000 operations at 400 V AC-1

5000 operations at 415 V AC-1

3000 operations at 690 V AC-1

3000 operations at 415 V AC-3

2000 operations at 690 V AC-3

3000 operations at 400 V AC-3

#### Functions

Disconnectors/main switches

Voltage release optional

Interlockable

#### Shock resistance

20 g (half-sinusoidal shock 20 ms)

#### Number of switches

1

#### Rated conditional short-circuit current (I<sub>q</sub>)

0 kA

#### Rated conditional short-circuit current with back-up fuse

PN3(N3)-400...630: 630 AgGgL

100 kA at 400/415 V

80 kA at 690 V

#### Rated conditional short-circuit current with downstream fuse

100 kA at 400/415 V

PN3(N3)-400...630: 630 AgGgL

80 kA at 690 V

#### Rated operating voltage (U<sub>e</sub>) at AC - max

690 V

#### Rated operational current for specified heat dissipation (I<sub>n</sub>)

400 A

#### Rated permanent current at AC-21, 400 V

0 A

#### Rated permanent current at AC-23, 400 V

0 A

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

12 kA

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

12 kA

Switching power at 400 V

0 kW

Handle type

Rocker lever

Number of operations per hour - max

60

Rated short-circuit making capacity I<sub>cm</sub> at 690 V, 50/60 Hz

25 kA

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

6000 V

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

8000 V

Standard terminals

Screw terminal

Optional terminals

Box terminal. Connection on rear. Tunnel terminal

Short-circuit protective device fuses - max

630 A gL

Terminal capacity (copper busbar)

Min. 20 mm x 5 mm direct at switch rear-side connection

Max. 10 mm x 50 mm (2x) at rear-side width extension

M10 at rear-side screw connection

Terminal capacity (copper solid conductor/cable)

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

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

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

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

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)

25 mm<sup>2</sup> - 120 mm<sup>2</sup> (2x) at box terminal

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

25 mm<sup>2</sup> - 120 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

35 mm<sup>2</sup> - 240 mm<sup>2</sup> (1x) at box terminal

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

50 mm<sup>2</sup> - 240 mm<sup>2</sup> (1x) at 2-hole tunnel terminal

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

25 mm<sup>2</sup> - 185 mm<sup>2</sup> (1x) at 1-hole tunnel terminal up to 240 mm<sup>2</sup>

depending on the cable manufacturer.



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