

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	

Product specifications

Rated operational current for specified heat dissipation (In)

400 A

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Mounting Method

Distribution board installation

Ground mounting

Fixed

Built-in device fixed built-in technique

Intermediate mounting

Amperage Rating

400 A

10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

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 type

Rocker lever

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Ambient storage temperature - min

40 °C

Number of switches

1

Resources

Brochures

[eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf](#)

[eaton-digital-nzm-brochure-br013003en-en-us.pdf](#)

Catalogues

[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

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

[The new digital NZM Range](#)

mCAD model

[DA-CS-nzm3_3p](#)

[DA-CD-nzm3_3p](#)

Technical data sheets

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

Protection against direct contact

Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110

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

10.8 Connections for external conductors

Is the panel builder's responsibility.

Short-circuit protective device fuses - max

630 A gL

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

Ambient operating temperature - max

70 °C

Rated permanent current at AC-21, 400 V

0 A

Climatic proofing

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

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

Terminal capacity (copper stranded conductor/cable)

25 mm² - 120 mm² (2x) at box terminal

25 mm² - 120 mm² (2x) direct at switch rear-side connection

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

25 mm² - 185 mm² (1x) at 1-hole tunnel terminal

35 mm² - 240 mm² (1x) at box terminal

50 mm² - 240 mm² (2x) at 2-hole tunnel terminal

50 mm² - 240 mm² (1x) at 2-hole tunnel terminal

Features

Version as maintenance-/service switch

Motor drive optional

Version as main switch

Version as emergency stop installation

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

Electrical connection type of main circuit

Screw connection

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

8000 V

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

Number of poles

Three-pole

Switch positions

I, +, 0

Ambient operating temperature - min

-25 °C

Handle color

Black

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

Equipment heat dissipation, current-dependent

43.2 W

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

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)

Application

Use in unearthed supply systems at 690 V

10.3 Degree of protection of assemblies

Does not apply, since the entire switchgear needs to be evaluated.

Rated operating voltage (Ue) at AC - max

690 V

Degree of protection (IP), front side

IP40 (with insulating surround)

IP20

IP66 (with door coupling rotary handle)

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

25 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

Number of auxiliary contacts (normally closed contacts)

0

Rated conditional short-circuit current (I_q)

0 kA

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.

Lifespan, mechanical

15000 operations

Rated operating power at AC-23, 400 V

200 kW

Rated operating frequency

50 Hz

Voltage rating

690 V - 690 V

Terminal capacity (copper solid conductor/cable)

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

16 mm² (2x) direct at switch rear-side connection

16 mm² (2x) at box terminal

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

Degree of protection (terminations)

IP00 (terminations, phase isolator and band terminal)

IP10 (tunnel terminal)

Terminal capacity (aluminum stranded conductor/cable)

25 mm² - 185 mm² (1x) at 1-hole tunnel terminal up to 240 mm²

depending on the cable manufacturer.

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Degree of protection

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

Overvoltage category

III

Rated short-time withstand current ($t = 1 \text{ s}$)

12 kA

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

6000 V

Rated short-time withstand current (I_{cw})

12 kA

Number of auxiliary contacts (change-over contacts)

0

Rated short-time withstand current ($t = 0.3 \text{ s}$)

12 kA

Ambient storage temperature - max

70 °C

Optional terminals

Box terminal. Connection on rear. Tunnel terminal

Pollution degree

3

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

Functions

Disconnectors/main switches

Voltage release optional

Interlockable

Switching power at 400 V

0 kW

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

Standard terminals

Screw terminal

Rated operating power at AC-3, 400 V

0 kW

Type

Switch-disconnector

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2.7 Inscriptions

Meets the product standard's requirements.

Rated permanent current at AC-23, 400 V

0 A

Number of auxiliary contacts (normally open contacts)

0

Isolation

300 V AC (between the auxiliary contacts)

500 V AC (between auxiliary contacts and main contacts)

Number of operations per hour - max

60

Circuit breaker frame type

N3

Direction of incoming supply

As required

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Rated insulation voltage (Ui)

1000 V

Terminal capacity (aluminum solid conductor/cable)

16 mm² (1x) at tunnel terminal

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

10 mm² - 16 mm² (2x) direct at switch rear-side connection



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