

Eaton 107631

Catalog Number: 107631

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 15A, box terminals, N2-AF15-BT-NA

General specifications

Product Name	Catalog Number
Eaton Moeller series NZM - Molded Case Circuit Breaker	107631
	Model Code
	NZMN2-AF15-BT-NA
EAN	Product Length/Depth
4015081072972	149 mm
Product Height	Product Width
195 mm	105 mm
Product Weight	Compliances
2.345 kg	RoHS conform

Certifications

IEC 60947-2 UL 489 CE marking UL listed CSA-C22.2 No. 5-09 UL (Category Control Number DIVQ) UL (File No. E31593) CSA (Class No. 1432-01) Specially designed for North America IEC CSA (File No. 22086) CSA certified IEC/EN 60947 UL/CSA



Product specifications

Rated operational current for specified heat dissipation (In)

15 A

10.11 Short-circuit rating

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

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

5 kA

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

DIN rail (top hat rail) mounting optional

Built-in device fixed built-in technique

Fixed

Amperage Rating

15 A

10.2.5 Lifting

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

Terminal capacity (copper strip)

Max. 10 segments of 16 mm x 0.8 mm at rear-side connection (punched)

Max. 10 segments of 16 mm x 0.8 mm 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

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

Protection against direct contact

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

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](#)

Certification reports

[DA-DC-03_N2](#)

Drawings

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

[123X312](#)

[123X341](#)

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

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

[123I247](#)

Installation instructions

[i101206006z2015_11.pdf](#)

Specifications and datasheets

[Eaton Specification Sheet - 107631](#)

Terminal capacity (copper busbar)

M8 at rear-side screw connection

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

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

10.8 Connections for external conductors

Is the panel builder's responsibility.

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: 15 A

Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.

Fixed overload releases I_r

Ambient operating temperature - max

70 °C

Position of connection for main current circuit

Front side

Climatic proofing

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

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

Terminal capacity (copper stranded conductor/cable)

4 mm² - 3/0 mm² (1x) direct at switch rear-side connection

4 mm² - 350 mm² (1x) at box terminal

4 mm² - 350 mm² (1x) at tunnel terminal

Features

Motor drive optional

Protection unit

Low-voltage HBC fuse - max

355 A gG/gL

Lifespan, electrical

6500 operations at 400 V AC-3

7500 operations at 690 V AC-1

6500 operations at 415 V AC-3

10000 operations at 400 V AC-1

5000 operations at 690 V AC-3

Electrical connection type of main circuit

Frame clamp

Short-circuit total breaktime

< 10 ms

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

8000 V

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 400/415 V, 50/60 Hz

50 kA

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

Utilization category

A (IEC/EN 60947-2)

Number of poles

Three-pole

Ambient operating temperature - min

-25 °C

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.

Terminal capacity (control cable)

14 mm² - 18 mm² (1x)

16 mm² - 18 mm² (2x)

Equipment heat dissipation, current-dependent

2.87 W

Instantaneous current setting (I_i) - min

350 A

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

300 A (380/400 V AC-1, making and breaking capacity)

300 A (415 V AC-1, making and breaking capacity)

15 A (660-690 V AC-3, making and breaking capacity)

15 A (690 V AC -1, making and breaking capacity)

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 230 V, 50/60 Hz

85 kA

Application

Branch circuits, feeder circuits

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

187 kA

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 440 V, 50/60 Hz

35 kA

Degree of protection (IP), front side

IP40 (with insulating surround)

IP66 (with door coupling rotary handle)

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

Instantaneous current setting (I_i) - max

350 A

Overload current setting (I_r) - min

15 A

Short delay current setting (I_{sd}) - min

0 A

Number of auxiliary contacts (normally closed contacts)

0

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

20000 operations

Overload current setting (I_r) - max

15 A

Voltage rating

690 V - 690 V

Terminal capacity (copper solid conductor/cable)

6 mm² - 11 mm² (1x) direct at switch rear-side connection

6 mm² - 12 mm² (1x) at box terminal

16 mm² (1x) at tunnel terminal

Degree of protection (terminations)

IP00 (terminations, phase isolator and strip terminal)

IP10 (tunnel terminal)

Rated operating voltage U_e (UL) - max

600Y/347 V, 480 V

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Short-circuit release non-delayed setting - min

350 A

Degree of protection

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

IP20

Overvoltage category

III

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

1.9 kA

Short delay current setting (I_{sd}) - max

0 A

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

6000 V

Number of auxiliary contacts (change-over contacts)

0

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

1.9 kA

Ambient storage temperature - max

70 °C

Release system

Thermomagnetic release

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 525 V, 50/60 Hz

25 kA

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

System and cable protection
Current limiting circuit breaker

Short-circuit release non-delayed setting - max

350 A

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

105 kA

Standard terminals

Box terminal

Type

Circuit breaker

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

74 kA

Number of auxiliary contacts (normally open contacts)

0

Isolation

500 V AC (between auxiliary contacts and main contacts)
300 V AC (between the auxiliary contacts)

Number of operations per hour - max

120

Circuit breaker frame type

NZM2

Direction of incoming supply

As required

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Rated insulation voltage (U_i)

1000 V

Terminal capacity (aluminum solid conductor/cable)

16 mm² (1x) at tunnel terminal



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