

Eaton 265722

Catalog Number: 265722

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 100A, N1-M100

General specifications

Product Name	Catalog Number
Eaton Moeller series NZM molded case circuit breaker thermo-magnetic	265722
	Model Code
	NZMN1-M100
EAN	Product Length/Depth
4015082657222	88 mm
Product Height	Product Width
145 mm	90 mm
Product Weight	Compliances
1.011 kg	RoHS conform
Certifications	
IEC/EN 60947	
IEC	

Product specifications

Rated operational current for specified heat dissipation (In)
100 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 I_{cs} (IEC/EN 60947) at 690 V, 50/60 Hz

7.5 kA

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

35 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

Built-in device fixed built-in technique

Fixed

Amperage Rating

100 A

10.2.5 Lifting

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

Terminal capacity (copper strip)

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

Max. 9 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

Fitted with:

Thermal protection

Protection against direct contact

Finger and back-of-hand proof to VDE 0106 part 100

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

[0000SPC-571](#)

[DA-DC-03_N1](#)

Characteristic curve

[eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve-002.eps](#)

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

[eaton-circuit-breaker-nzm-mccb-characteristic-curve-058.eps](#)

[1230DIA-3](#)

[123U184](#)

[1230DIA-13](#)

Drawings

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-014.eps](#)

[123X506](#)

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

[123X039](#)

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

eCAD model

[ETN.NZMN1-M100](#)

mCAD model

[DA-CS-nzm1_3p](#)

[DA-CD-nzm1_3p](#)

Specifications and datasheets

[Eaton Specification Sheet - 265722](#)

Technical data sheets

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

Wiring diagrams

[eaton-manual-motor-starters-starter-nzm-mccb-wiring-diagram.eps](#)

[121S028](#)

[eaton-manual-motor-starters-starter-msc-r-reversing-starter-wiring-diagram.eps](#)

Terminal capacity (copper busbar)

Max. 16 mm x 5 mm direct at switch rear-side connection
 M6 at rear-side screw connection
 Min. 12 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: 100 A

Terminal capacity hint: Up to 95 mm² can be connected depending on the cable manufacturer.

With phase-failure sensitivity

Tripping class 10 A

IEC/EN 60947-4-1, IEC/EN 60947-2

The circuit-breaker fulfills all requirements for AC-3 switching category.

Ambient operating temperature - max

70 °C

Climatic proofing

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

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

Terminal capacity (aluminum stranded conductor/cable)

25 mm² - 35 mm² (2x) direct at switch rear-side connection

25 mm² - 35 mm² (1x) direct at switch rear-side connection

25 mm² - 95 mm² (1x) at tunnel terminal

Terminal capacity (copper stranded conductor/cable)

10 mm² - 70 mm² (1x) at box terminal

10 mm² - 70 mm² (1x) direct at switch rear-side connection

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

6 mm² - 25 mm² (2x) at box terminal

25 mm² - 95 mm² (1x) at 1-hole tunnel terminal

Lifespan, electrical

7500 operations at 415 V AC-3

7500 operations at 690 V AC-1

10000 operations at 415 V AC-1

5000 operations at 690 V AC-3

10000 operations at 400 V AC-1

7500 operations at 400 V AC-3

Electrical connection type of main circuit

Other

Short-circuit total breaktime

< 10 ms

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

6000 V

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

35 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)

0.75 mm² - 1.5 mm² (2x)

0.75 mm² - 2.5 mm² (1x)

Equipment heat dissipation, current-dependent

23.85 W

Instantaneous current setting (I_i) - min

800 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

99 A (400 V AC-3)

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

85 kA

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 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

40 kA

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

17 kA

Instantaneous current setting (I_i) - max

1250 A

Overload current setting (I_r) - min

80 A

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

100 A

Voltage rating

690 V - 690 V

Terminal capacity (copper solid conductor/cable)

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

16 mm² (1x) at tunnel terminal

6 mm² - 16 mm² (2x) at box terminal

10 mm² - 16 mm² (1x) at box terminal

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

Degree of protection (terminations)

IP10 (tunnel terminal)

IP00 (terminations, phase isolator and strip terminal)

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Short-circuit release non-delayed setting - min

800 A

Degree of protection

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

IP20

Overvoltage category

III

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

6000 V

Terminal capacity (aluminum solid conductor/cable)

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

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

16 mm² (1x) at tunnel terminal

Switch off technique

Thermomagnetic

Ambient storage temperature - max

70 °C

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

10 kA

Optional terminals

Connection on rear. Screw terminal. Tunnel terminal

Release system

Thermomagnetic release

Pollution degree

3

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

Rated operating power at AC-3, 230 V

30 kW

10.10 Temperature rise

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

Functions

Phase failure sensitive

Motor protection

Short-circuit release non-delayed setting - max

1250 A

Standard terminals

Box terminal

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

105 kA

Rated operating power at AC-3, 400 V

55 kW

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

Isolation

300 V AC (between the auxiliary contacts)

500 V AC (between auxiliary contacts and main contacts)

Number of operations per hour - max

120

Circuit breaker frame type

NZM1

Direction of incoming supply

As required

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Rated insulation voltage (U_i)

690 V



Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com
© 2023 Eaton. All Rights Reserved.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.



[Eaton.com/socialmedia](https://www.eaton.com/socialmedia)