

Eaton 168509

Catalog Number: 168509

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 320A, 200A in 4th pole, plug-in module, N, 3, 20

General specifications



Photo is representative

Product Name	Catalog Number
Eaton Moeller series NZM molded case circuit breaker thermo-magnetic	168509
	Model Code
	NZMN3-4-A320/200-SVE
EAN	Product Length/Depth
4015081649877	335 mm
Product Height	Product Width
215.2 mm	185 mm
Product Weight	Compliances
8.81 kg	RoHS conform

Special features

Rated current = rated uninterrupted current: 320 A

Application

Use in unearthed supply systems at 690 V

Amperage Rating

320 A

Voltage rating

690 V - 690 V

Features

Protection unit

Motor drive optional

Accessories required

NZM3-XSVS

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 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.

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

[DA-DC-03_N3](#)

eCAD model

[DA-CE-ETN.NZMN3-4-A320_200-SVE](#)

Installation instructions

[IL01219023Z](#)

Installation videos

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

[The new digital NZM Range](#)

mCAD model

[nzm3_4_a320_sve.dwg](#)

[nzm3_4_a320_sve.stp](#)

Technical data sheets

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

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.

Mounting Method

Built-in device plug-in technique

Equipment heat dissipation, current-dependent

94 W

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

Degree of protection

IP20

Electrical connection type of main circuit

Screw connection

Current rating of neutral conductor

60% of phase conductor

Number of poles

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

Position of connection for main current circuit

Front side

Short-circuit release non-delayed setting - max

3200 A

Short-circuit release non-delayed setting - min

1920 A

Terminal capacity (copper busbar)

Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side
connection

Handle type

Rocker lever

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

0 A

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

0 A

Instantaneous current setting (Ii) - max

19200 A

Instantaneous current setting (Ii) - min

1920 A

Overload current setting (Ir) - max

320 A

Overload current setting (Ir) - min

250 A

Overload current setting (Ir)

160 A - 200 A

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

50 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 500
V DC

30 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 750
V DC

30 kA

Optional terminals

Box terminal. Connection on rear. Tunnel terminal

Rated short-circuit making capacity Icm at 240 V, 50/60 Hz

330 kA



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