

# Specifications



## Eaton 168508

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 320A, plug-in module, NZMN3-4-A320-SVE

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series NZM molded case circuit breaker thermo-magnetic
<b>CATALOG NUMBER</b>	168508
<b>EAN</b>	4015081649860
<b>PRODUCT LENGTH/DEPTH</b>	335 mm
<b>PRODUCT HEIGHT</b>	215.2 mm
<b>PRODUCT WIDTH</b>	185 mm
<b>PRODUCT WEIGHT</b>	8.81 kg
<b>COMPLIANCES</b>	RoHS conform
<b>MODEL CODE</b>	NZMN3-4-A320-SVE

## Product specifications

<b>AMPERAGE RATING</b>	320 A
<b>VOLTAGE RATING</b>	690 V - 690 V
<b>FEATURES</b>	Motor drive optional Protection unit
<b>ACCESSORIES REQUIRED</b>	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.

### 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.

## Resources

### BROCHURES

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

### CATALOGUES

[eaton-digital-nzm-catalog-ca013003en-en-us.pdf](#)

### DECLARATIONS OF CONFORMITY

[eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250292en.pdf](#)

### ECAD MODEL

[DA-CE-ETN.NZMN3-4-A320-SVE](#)

### INSTALLATION INSTRUCTIONS

[eaton-circuit-breaker-plug-in-adapter-nzm2-il01219023z.pdf](#)

### INSTALLATION VIDEOS

[The new digital NZM Range](#)

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

### MCAD MODEL

[nzm3\\_4\\_a320\\_sve.dwg](#)

[nzm3\\_4\\_a320\\_sve.stp](#)

### PEP ECO-PASSPORT

[eaton-molded-case-switches-pep-eato-00231-v0101-en.pdf](#)

### TECHNICAL DATA SHEETS

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

<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>MOUNTING METHOD</b>	Built-in device plug-in technique
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	94 W
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	70 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	70 °C
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	0
<b>DEGREE OF PROTECTION</b>	IP20
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>CURRENT RATING OF</b>	200% of phase conductor

**NEUTRAL CONDUCTOR**

<b>NUMBER OF POLES</b>	Four-pole
<b>TERMINAL CAPACITY (COPPER STRIP)</b>	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)
	Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched)
<b>SPECIAL FEATURES</b>	Rated current = rated uninterrupted current: 320 A
<b>APPLICATION</b>	Use in unearthing supply systems at 690 V
<b>POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT</b>	Front side
<b>SHORT-CIRCUIT RELEASE</b>	
<b>NON-DELAYED SETTING - MAX</b>	3200 A
<b>SHORT-CIRCUIT RELEASE</b>	
<b>NON-DELAYED SETTING - MIN</b>	1920 A
<b>TERMINAL CAPACITY (COPPER BUSBAR)</b>	Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection
<b>HANDLE TYPE</b>	Rocker lever
<b>SHORT DELAY CURRENT SETTING (ISD) - MAX</b>	0 A
<b>SHORT DELAY CURRENT SETTING (ISD) - MIN</b>	0 A
<b>INSTANTANEOUS CURRENT SETTING (II) - MAX</b>	19200 A
<b>INSTANTANEOUS CURRENT SETTING (II) - MIN</b>	1920 A
<b>OVERLOAD CURRENT SETTING (IR) - MAX</b>	320 A
<b>OVERLOAD CURRENT SETTING (IR) - MIN</b>	250 A
<b>OVERLOAD CURRENT SETTING (IR)</b>	250 A - 320 A
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ</b>	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

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**



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