

# Specifications



Photo is representative

## Eaton 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

<b>PRODUCT NAME</b>	Eaton Moeller series NZM molded case circuit breaker thermo-magnetic
<b>CATALOG NUMBER</b>	168509
<b>MODEL CODE</b>	NZMN3-4-A320/200-SVE
<b>EAN</b>	4015081649877
<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>GLOBAL CATALOG</b>	168509



Powering Business Worldwide

## Product specifications

<b>AMPERAGE RATING</b>	320 A
<b>VOLTAGE RATING</b>	690 V - 690 V
<b>FEATURES</b>	Protection unit Motor drive optional
<b>ACCESSORIES REQUIRED</b>	NZM3-XSVS
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.

## Resources

<b>BROCHURES</b>	<a href="#">eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf</a> <a href="#">eaton-digital-nzm-brochure-br013003en-en-us.pdf</a>
<b>CATALOGS</b>	<a href="#">eaton-digital-nzm-catalog-ca013003en-en-us.pdf</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250292en.pdf</a>
<b>ECAD MODEL</b>	<a href="#">DA-CE-ETN.NZMN3-4-A320_200-SVE</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">eaton-circuit-breaker-plug-in-adapter-nzm2-il01219023z.pdf</a>
<b>INSTALLATION VIDEOS</b>	<a href="#">The new digital NZM Range</a> <a href="#">Introduction of the new digital circuit breaker NZM</a>
<b>MCAD MODEL</b>	<a href="#">nzmn3_4_a320_sve.stp</a> <a href="#">nzmn3_4_a320_sve.dwg</a>
<b>PEP ECO-PASSPORT</b>	<a href="#">eaton-molded-case-switches-pep-eato-00231-v0101-en.pdf</a>
<b>TECHNICAL DATA SHEETS</b>	<a href="#">eaton-nzm-technical-information-sheet</a>

<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>	60% of phase conductor

<b>NEUTRAL CONDUCTOR</b>	
<b>NUMBER OF POLES</b>	Four-pole
<b>TERMINAL CAPACITY (COPPER STRIP)</b>	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)
<b>SPECIAL FEATURES</b>	Rated current = rated uninterrupted current: 320 A
<b>APPLICATION</b>	Use in unearthed supply systems at 690 V
<b>POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT</b>	Front side
<b>SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX</b>	3200 A
<b>SHORT-CIRCUIT RELEASE 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>	160 A - 200 A
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ</b>	50 kA
<b>RATED SHORT-CIRCUIT</b>	30 kA

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**BREAKING CAPACITY ICS  
(IEC/EN 60947) AT 500 V  
DC**

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**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICS  
(IEC/EN 60947) AT 750 V  
DC** 30 kA

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**OPTIONAL TERMINALS** Box terminal. Connection  
on rear. Tunnel terminal

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**RATED SHORT-CIRCUIT  
MAKING CAPACITY ICM  
AT 240 V, 50/60 HZ** 330 kA

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**PROJECT NAME:**

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**PROJECT NUMBER:**

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**PREPARED BY:**

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**DATE:**

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