

Specifications



Eaton 168508

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

General specifications

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



Powering Business Worldwide

Delivery programme

ACCESSORIES REQUIRED	NZM3-XSVS
AMPERAGE RATING	320 A
APPLICATION	Use in unearthed supply systems at 690 V
FEATURES	Motor drive optional Protection unit
NUMBER OF POLES	Four-pole
SPECIAL FEATURES	Rated current = rated uninterrupted current: 320 A

Design verification to IEC/EN 61439

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.
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	Does not apply, since the

Design verification to IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MAX	70 °C
-------------------------------------	-------

AMBIENT STORAGE TEMPERATURE - MAX	70 °C
-----------------------------------	-------

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
-------------------------------------	--------

AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
-----------------------------------	--------

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	94 W
---	------

AGAINST ELECTRIC SHOCK	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.
--	--

Technical data - electrical

AMPERAGE RATING	320 A
-----------------	-------

CURRENT RATING OF NEUTRAL CONDUCTOR	200% of phase conductor
-------------------------------------	-------------------------

ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
--	------------------

HANDLE TYPE	Rocker lever
-------------	--------------

INSTANTANEOUS CURRENT SETTING (II) - MAX	19200 A
--	---------

INSTANTANEOUS CURRENT SETTING (II) - MIN	1920 A
--	--------

OVERLOAD CURRENT SETTING (IR)	250 A - 320 A
-------------------------------	---------------

OVERLOAD CURRENT SETTING (IR) - MAX	320 A
-------------------------------------	-------

OVERLOAD CURRENT SETTING (IR) - MIN	250 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
--	-------

RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ	330 kA
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	3200 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	1920 A
VOLTAGE RATING	690 V - 690 V

Technical data - mechanical

DEGREE OF PROTECTION	IP20
MOUNTING METHOD	Built-in device plug-in technique
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Front side
SPECIAL FEATURES	Rated current = rated uninterrupted current: 320 A

Technical data - mechanical - terminals

OPTIONAL TERMINALS	Box terminal. Connection on rear. Tunnel terminal
TERMINAL CAPACITY (COPPER BUSBAR)	Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER STRIP)	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)

Resources

BROCHURES	eaton-digital-nzm-brochure-br013003en-en-us.pdf
	eaton-feerum-the-whole-grain-solution-success-story-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
	eaton-molded-case-circuit-breaker-declaration-of-conformity-uk251454en.pdf
ECAD MODEL	DA-CE-ETN.NZMN3-4-A320-SVE
INSTALLATION INSTRUCTIONS	eaton-circuit-breaker-plugin-adapter-nzm2-il01219023z.pdf
INSTALLATION VIDEOS	The new digital NZM Range
	Introduction of the new digital circuit breaker NZM
MCAD MODEL	eaton-molded-case-switches-mcad-3d-models-nzm3-4p-xsve.stp
	eaton-molded-case-switches-mcad-drawings-nzm3-4p-xsve.dwg
PEP ECO-PASSPORT	eaton-molded-case-switches-pep-eato-00231-v0101-en.pdf
TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

