

Specifications



Photo is representative



Eaton 290371

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 800A 1000V, AE800-S1

General specifications

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker electronic
CATALOG NUMBER	290371
MODEL CODE	NZMH4-AE800-S1
EAN	4015082903718
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	210 mm
PRODUCT WEIGHT	18.5 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC
GLOBAL CATALOG	290371

Product specifications

AMPERAGE RATING	800 A
VOLTAGE RATING	1000 V - 1000 V
CIRCUIT BREAKER FRAME TYPE	NZM4
FEATURES	Motor drive optional Protection unit
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-feerum-the-whole-grain-solution-success-story-en-us.pdf](#)

CATALOGS

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

CHARACTERISTIC CURVE

[eaton-circuit-breaker-nzm-mccb-characteristic-curve-047.eps](#)

DECLARATIONS OF CONFORMITY

[eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250294en.pdf](#)

DRAWINGS

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-022.eps](#)

INSTALLATION INSTRUCTIONS

[eaton-circuit-breaker-basic-unit-nzmn4-i01210010z.pdf](#)

INSTALLATION VIDEOS

[The new digital NZM Range](#)

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

MCAD MODEL

[DA-CD-nzm4_3p](#)
[DA-CS-nzm4_3p](#)

PEP ECO-PASSPORT

[eaton-molded-case-switches-pep-eato-00221-v0101-en.pdf](#)

TECHNICAL DATA SHEETS

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

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.
POLLUTION DEGREE	3
MOUNTING METHOD	Built-in device fixed built-in technique Fixed
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	79 W
UTILIZATION CATEGORY	A
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	Screw connection

CONNECTION TYPE OF MAIN CIRCUIT	
LIFESPAN, MECHANICAL	10000 operations
OVERVOLTAGE CATEGORY	III
NUMBER OF POLES	Three-pole
TERMINAL CAPACITY (COPPER STRIP)	<p>10 segments of 80 mm x 1 mm (2x) at rear-side width extension</p> <p>Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)</p> <p>Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal</p> <p>Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)</p> <p>Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal</p> <p>10 segments of 50 mm x 1 mm (2x) at 1-hole module plate</p>
LIFESPAN, ELECTRICAL	500 operations at 1000 V AC-1
FUNCTIONS	System and cable protection
TYPE	Circuit breaker
SPECIAL FEATURES	<ul style="list-style-type: none"> • Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release • R.m.s. value measurement and "thermal memory" • NZM...S1 terminal type: NZM...XKSA cover required • Rated current = rated uninterrupted current: 800 A
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Front side
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	800 A
RELEASE SYSTEM	Electronic release
RATED SHORT-TIME	19.2 kA

**WITHSTAND CURRENT (T
= 0.3 S)****RATED SHORT-TIME****WITHSTAND CURRENT (T
= 1 S)** 19.2 kA**SHORT-CIRCUIT RELEASE****NON-DELAYED SETTING -
MAX** 9600 A**SHORT-CIRCUIT RELEASE****NON-DELAYED SETTING -
MIN** 1600 A**TERMINAL CAPACITY
(CONTROL CABLE)**0.75 mm² - 2.5 mm² (1x)
0.75 mm² - 1.5 mm² (2x)

Max. 50 mm x 10 mm (2x)
direct at switch rear-side
connection
50 mm x 10 mm (2x) at
rear-side 2-hole module
plate
Min. 25 mm x 5 mm at
rear-side 1-hole module
plate
Max. 80 mm x 10 mm (2x)
direct at switch rear-side
connection

**TERMINAL CAPACITY
(COPPER BUSBAR)**

Min. 60 mm x 10 mm at
rear-side width extension
Max. 50 mm x 10 mm (2x)
at rear-side 1-hole module
plate
Max. 80 mm x 10 mm (2x)
at rear-side width
extension
Min. 25 mm x 5 mm direct
at switch rear-side
connection
M10 at rear-side screw
connection

**TERMINAL CAPACITY
(COPPER SOLID
CONDUCTOR/CABLE)**

35 mm² - 185 mm² (4x) at
rear-side 2-hole module
plate
50 mm² - 240 mm² (4x) at
4-hole tunnel terminal
70 mm² - 185 mm² (2x) at
rear-side 1-hole module
plate
70 mm² - 240 mm² (6x) at
rear-side width extension
50 mm² (4x) at rear-side 2-
hole module plate
185 mm² - 240 mm² (1x) at
rear-side 1-hole module
plate
240 mm² (2x) at rear-side
width extension

**TERMINAL CAPACITY
(ALUMINUM STRANDED**50 mm² - 240 mm² (4x) at
4-hole tunnel terminal

CONDUCTOR/CABLE)

HANDLE TYPE	Rocker lever
SHORT DELAY CURRENT SETTING (ISD) - MAX	0 A
SHORT DELAY CURRENT SETTING (ISD) - MIN	0 A
INSTANTANEOUS CURRENT SETTING (II) - MAX	9600 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	1600 A
NUMBER OF OPERATIONS PER HOUR - MAX	60
OVERLOAD CURRENT SETTING (IR) - MAX	800 A
OVERLOAD CURRENT SETTING (IR) - MIN	400 A
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 1000 V, 50/60 HZ	15 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ	63 kA
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 440 V, 50/60 HZ	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 525 V, 50/60 HZ	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 690 V, 50/60 HZ	37 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 1000 V, 50/60 HZ	40 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ	187 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ	187 kA

**RATED SHORT-CIRCUIT
MAKING CAPACITY ICM
AT 525 V, 50/60 HZ**

143 kA

**RATED SHORT-CIRCUIT
MAKING CAPACITY ICM
AT 690 V, 50/60 HZ**

100 kA

STANDARD TERMINALS

Screw terminal

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

275 kA

**RATED IMPULSE
WITHSTAND VOLTAGE
(UIMP) AT AUXILIARY
CONTACTS**

6000 V

**RATED IMPULSE
WITHSTAND VOLTAGE
(UIMP) AT MAIN
CONTACTS**

8000 V

**RATED INSULATION
VOLTAGE (UI)**

1000 V AC

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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