

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 eaton-digital-nzm-brochure-br013003en-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-nzm-mccb-dimensions-022.eps eaton-circuit-breaker-switch-nzm-mccb-3d-drawing-003.eps
INSTALLATION INSTRUCTIONS	eaton-circuit-breaker-basic-unit-nzmn4-il01210010z.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)	10 segments of 80 mm x 1 mm (2x) at rear-side width extension Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal 10 segments of 50 mm x 1 mm (2x) at 1-hole module plate
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 mm ² - 2.5 mm ² (1x) 0.75 mm ² - 1.5 mm ² (2x)
TERMINAL CAPACITY (COPPER BUSBAR)	<p>Max. 50 mm x 10 mm (2x) direct at switch rear-side connection</p> <p>50 mm x 10 mm (2x) at rear-side 2-hole module plate</p> <p>Min. 25 mm x 5 mm at rear-side 1-hole module plate</p> <p>Max. 80 mm x 10 mm (2x) direct at switch rear-side connection</p> <p>Min. 60 mm x 10 mm at rear-side width extension</p> <p>Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate</p> <p>Max. 80 mm x 10 mm (2x) at rear-side width extension</p> <p>Min. 25 mm x 5 mm direct at switch rear-side connection</p> <p>M10 at rear-side screw connection</p>
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	<p>35 mm² - 185 mm² (4x) at rear-side 2-hole module plate</p> <p>50 mm² - 240 mm² (4x) at 4-hole tunnel terminal</p> <p>70 mm² - 185 mm² (2x) at rear-side 1-hole module plate</p> <p>70 mm² - 240 mm² (6x) at rear-side width extension</p> <p>50 mm² (4x) at rear-side 2- hole module plate</p> <p>185 mm² - 240 mm² (1x) at rear-side 1-hole module plate</p> <p>240 mm² (2x) at rear-side width extension</p>
TERMINAL CAPACITY (ALUMINUM STRANDED)	50 mm ² - 240 mm ² (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:



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

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