

Specifications



Photo is representative



Eaton 189691

NZMH4-PMX875-AVE. NZM4 PXR25 circuit breaker - integrated energy measurement class 1, 875A, 3p, Screw terminal, withdrawable unit

General specifications

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker electronic
CATALOG NUMBER	189691
MODEL CODE	NZMH4-PMX875-AVE
EAN	4015081876389
PRODUCT LENGTH/DEPTH	501 mm
PRODUCT HEIGHT	280 mm
PRODUCT WIDTH	260 mm
PRODUCT WEIGHT	29 kg
CERTIFICATIONS	IEC IEC/EN 60947
GLOBAL CATALOG	189691

Product specifications

AMPERAGE RATING	875 A
VOLTAGE RATING	690 V - 690 V
CIRCUIT BREAKER FRAME TYPE	NZM4
ACCESSORIES REQUIRED	NZM4-XAVS

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](#)

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-withdrawable-unit-nzm-mccb-dimensions.eps](#)

INSTALLATION INSTRUCTIONS

[eaton-circuit-breaker-basic-unit-bg4-i012101zu.pdf](#)

INSTALLATION VIDEOS

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

MCAD MODEL

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

PEP ECO-PASSPORT

[eaton-molded-case-switches-pep-eato-00243-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.
FITTED WITH:	Thermal protection
POLLUTION DEGREE	3
MOUNTING METHOD	Built-in device slide-in technique (withdrawable) Withdrawable
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	84.98 W
UTILIZATION CATEGORY	B (IEC/EN 60947-2)
ISOLATION	300 V AC (between the auxiliary contacts) 500 V AC (between auxiliary contacts and main contacts)
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
PROTECTION AGAINST	Finger and back-of-hand

DIRECT CONTACT	proof to VDE 0106 part 100
RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATING POWER AT AC-3, 230 V	250 kW
RATED OPERATING POWER AT AC-3, 400 V	500 kW
SWITCH OFF TECHNIQUE	Electronic
DEGREE OF PROTECTION	IP20 (basic degree of protection, in the operating controls area) IP20
DIRECTION OF INCOMING SUPPLY	As required
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Other
LIFESPAN, MECHANICAL	10000 operations
OVERVOLTAGE CATEGORY	III
DEGREE OF PROTECTION (IP), FRONT SIDE	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
DEGREE OF PROTECTION (TERMINATIONS)	IP00 (terminations, phase isolator and strip terminal) IP10 (tunnel terminal)
NUMBER OF POLES	Three-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal 10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal 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. 5 segments of 25 mm x 1 mm at rear-side connection (punched)
LIFESPAN, ELECTRICAL	2000 operations at 690 V AC-1 3000 operations at 400 V AC-1 2000 operations at 400 V

	<p>AC-3 3000 operations at 415 V AC-1 1000 operations at 690 V AC-3 2000 operations at 415 V AC-3</p>
FUNCTIONS	Motor protection Phase failure sensitive
TYPE	Circuit breaker
SPECIAL FEATURES	<ul style="list-style-type: none"> • Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity I_{cn}) • Motor protection - overload- and short-circuit protective device L1 Motor • Class 1 energy measurement, phase loss protection, r.m.s. value measurement, and "thermal memory" • USB interface for configuration and test function with Power Xpert Protection Manager software • Interface module in equipment supplied. • Optionally communication-capable with interface module and internal Modbus RTU module or CAM • Rated current = rated uninterrupted current: 875 A
SHOCK RESISTANCE	15 g (half-sinusoidal shock 11 ms)

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	875 A
RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S)	19.2 kA
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	19.2 kA
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	15750 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	1750 A
HANDLE TYPE	Rocker lever
INSTANTANEOUS CURRENT SETTING (II) - MAX	18 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	2 A
NUMBER OF OPERATIONS PER HOUR - MAX	60
OVERLOAD CURRENT SETTING (IR) - MAX	875 A
OVERLOAD CURRENT SETTING (IR) - MIN	350 A
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	37 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 690 V, 50/60 Hz	37 kA
STANDARD TERMINALS	Screw terminal
OPTIONAL TERMINALS	Connection on rear. Strip terminal. Tunnel terminal

RELEASE SYSTEM	Electronic release
SHORT-CIRCUIT TOTAL BREAKTIME	< 25 ms (≤ 415 V); < 35 ms (> 415 V)
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	50 mm ² - 240 mm ² (4x) at 4-hole tunnel terminal
TERMINAL CAPACITY (CONTROL CABLE)	0.75 mm ² - 1.5 mm ² (2x) 0.75 mm ² - 2.5 mm ² (1x)
TERMINAL CAPACITY (COPPER BUSBAR)	Min. 25 mm x 5 mm direct at switch rear-side connection 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 at rear-side 1-hole module plate M10 at rear-side screw connection 50 mm x 10 mm (2x) at rear-side 2-hole module plate Min. 60 mm x 10 mm at rear-side width extension Max. 50 mm x 10 mm (2x) direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	95 mm ² - 240 mm ² (6x) at rear-side width extension 50 mm ² - 240 mm ² (4x) at 4-hole tunnel terminal 120 mm ² - 300 mm ² (1x) at rear-side 1-hole module plate 35 mm ² - 185 mm ² (4x) at rear-side 2-hole module plate 300 mm ² (4x) at rear-side width extension 95 mm ² - 300 mm ² (2x) at rear-side 1-hole module plate 95 mm ² - 185 mm ² (2x) at rear-side 2-hole module plate
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	50 mm ² - 185 mm ² (4x) direct at switch rear-side connection 120 mm ² - 185 mm ² (1x) direct at switch rear-side connection
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU (IEC/EN 60947) AT	50 kA

400/415 V, 50/60 HZ

RATED SHORT-CIRCUIT

MAKING CAPACITY ICM 187 kA
AT 400/415 V, 50/60 HZ

RATED SHORT-CIRCUIT

MAKING CAPACITY ICM 187 kA
AT 440 V, 50/60 HZ

RATED SHORT-CIRCUIT

MAKING CAPACITY ICM 143 kA
AT 525 V, 50/60 HZ

RATED SHORT-CIRCUIT

MAKING CAPACITY ICM 100 kA
AT 690 V, 50/60 HZ

RATED SHORT-CIRCUIT

MAKING CAPACITY ICM 275 kA
AT 240 V, 50/60 HZ

RATED IMPULSE

WITHSTAND VOLTAGE 6000 V
(UIMP) AT AUXILIARY
CONTACTS

RATED IMPULSE

WITHSTAND VOLTAGE 8000 V
(UIMP) AT MAIN
CONTACTS

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



Eaton Corporation plc

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

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