## Specifications



Photo is representative

## Eaton 107658

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 33A, box terminals

General specifications	
PRODUCT NAME	Eaton Moeller series NZM - Molded case circuit breaker
CATALOG NUMBER	107658
MODEL CODE	NZMB2-S33-BT-CNA
EAN	4015081073245
PRODUCT LENGTH/DEPTH	149 mm
PRODUCT HEIGHT	195 mm
PRODUCT WIDTH	105 mm
PRODUCT WEIGHT	2.345 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	CSA (File No. 22086) UL 489 Specially designed for North America UL listed UL (File No. E31593) UL (Category Control Number DKPU2) CSA (Class No. 1432-01) UL/CSA CSA certified CSA-C22.2 No. 5-09



AMPERAGE RATING	33 A
VOLTAGE RATING	440 V - 440 V
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.
	Does not apply, since the

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
	eaton-circuit-breaker-nzm- mccb-characteristic-curve- 052.eps
CHARACTERISTIC CURVE	eaton-circuit-breaker- characteristic-power- defense-mccb- characteristic-curve- 030.eps
	eaton-circuit-breaker- characteristic-power- defense-mccb- characteristic-curve- 034.eps
DECLARATIONS OF CONFORMITY	eaton-molded-case-circuit- breaker-declaration-of- conformity- eu250290en.pdf
	eaton-circuit-breaker- switch-nzm-mccb- dimensions-017.eps
DRAWINGS	eaton-circuit-breaker-nzm- mccb-dimensions-019.eps
	eaton-circuit-breaker- switch-nzm-mccb-3d- drawing.eps
	eaton-circuit-breakers-
INSTALLATION INSTRUCTIONS	basic-device-nzm2- il01206006z.pdf
	il01206006z.pdf  Introduction of the new digital circuit breaker NZM  The new digital NZM
INSTRUCTIONS	il01206006z.pdf  Introduction of the new digital circuit breaker NZM
INSTRUCTIONS	il01206006z.pdf  Introduction of the new digital circuit breaker NZM  The new digital NZM Range

PROTECTION OF ASSEMBLIES	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	ls 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	Fixed DIN rail (top hat rail) mounting optional Built-in device fixed built- in technique
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT	2.55 W
UTILIZATION CATEGORY	A (IEC/EN 60947-2)
ISOLATION	500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary contacts)
DEGREE OF PROTECTION	IP20 IP20 (basic degree of protection, in the operating controls area)
DIRECTION OF INCOMING SUPPLY	As required
ELECTRICAL CONNECTION TYPE OF	Frame clamp

MAIN CIRCUIT	
LIFESPAN, MECHANICAL	20000 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)	Max. 10 segments of 16 mm x 0.8 mm at box terminal Max. 10 segments of 16 mm x 0.8 mm at rear-side connection (punched) Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 9 mm x 0.8 mm at box terminal
LIFESPAN, ELECTRICAL	6500 operations at 415 V AC-3 7500 operations at 400 V AC-1
FUNCTIONS	Short-circuit protection
ТҮРЕ	Circuit breaker
SPECIAL FEATURES	<ul> <li>Rated current = rated uninterrupted current: 33 A</li> <li>This circuit-breaker is only allowed to be used for UL/CSA applications.</li> <li>Motor protection in conjunction with contactor and overload relay</li> <li>With short-circuit release</li> <li>Without overload release Ir</li> </ul>
APPLICATION	Branch circuits, feeder circuits
SHOCK RESISTANCE	20 g (half-sinusoidal shock 20 ms)

RELEASE SYSTEM	Thermomagnetic release
SHORT-CIRCUIT TOTAL BREAKTIME	< 10 ms
TERMINAL CAPACITY (CONTROL CABLE)	14 mm² - 18 mm² (1x) 16 mm² - 18 mm² (2x)
TERMINAL CAPACITY (COPPER BUSBAR)	Min. 16 mm x 5 mm direct at switch rear-side connection Max. 20 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	16 mm <sup>2</sup> (1x) at tunnel terminal 6 mm <sup>2</sup> - 12 mm <sup>2</sup> (1x) at box terminal 6 mm <sup>2</sup> - 11 mm <sup>2</sup> (1x) direct at switch rear-side connection
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	4 mm <sup>2</sup> - 350 mm <sup>2</sup> (1x) at tunnel terminal 4 mm <sup>2</sup> - 3/0 mm <sup>2</sup> (1x) direct at switch rear-side connection 4 mm <sup>2</sup> - 350 mm <sup>2</sup> (1x) at box terminal

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	



## **Eaton Corporation plc**

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