

Specifications



Photo is representative

Eaton 113360

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 80A, plug-in module, H2-M80-SVE

General specifications

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker thermo-magnetic
CATALOG NUMBER	113360
MODEL CODE	NZMH2-M80-SVE
EAN	4015081128952
PRODUCT LENGTH/DEPTH	180 mm
PRODUCT HEIGHT	245 mm
PRODUCT WIDTH	105 mm
PRODUCT WEIGHT	2.756 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 60947 IEC
GLOBAL CATALOG	113360



Powering Business Worldwide

Product specifications

AMPERAGE RATING	80 A
VOLTAGE RATING	690 V - 690 V
CIRCUIT BREAKER FRAME TYPE	NZM2
ACCESSORIES REQUIRED	NZM2-XSVS
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 eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-037.eps
CHARACTERISTIC CURVE	eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve-005.eps eaton-circuit-breaker-nzm-mccb-characteristic-curve-052.eps
DECLARATIONS OF CONFORMITY	eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250290en.pdf eaton-circuit-breaker-nzm-mccb-dimensions-019.eps eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps
DRAWINGS	eaton-circuit-breaker-adapter-nzm-mccb-dimensions-002.eps eaton-general-ie-ready-dilm-contactor-standards.eps eaton-circuit-breaker-switch-nzm-mccb-3d-drawing.eps
INSTALLATION INSTRUCTIONS	eaton-circuit-breakers-basic-device-nzm2-il01206006z.pdf eaton-circuit-breaker-plugin-adapter-nzm2-il01219023z.pdf
INSTALLATION VIDEOS	Introduction of the new digital circuit breaker NZM The new digital NZM Range

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 plug-in technique Plug-in unit
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	20.54 W
UTILIZATION CATEGORY	A (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

MCAD MODEL	DA-CD-nzm2_xsve
	DA-CS-nzm2_xsve
PEP ECO-PASSPORT	eaton-molded-case-switches-pep-eato-00218-v0101-en.pdf
TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

DIRECT CONTACT	proof to VDE 0106 part 100
RATED INSULATION VOLTAGE (UI)	1000 V
RATED OPERATING POWER AT AC-3, 230 V	22 kW
RATED OPERATING POWER AT AC-3, 400 V	45 kW
SWITCH OFF TECHNIQUE	Thermomagnetic
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	Screw connection
LIFESPAN, MECHANICAL	20000 operations
OVERVOLTAGE CATEGORY	III
RATED OPERATIONAL CURRENT	68 A (400 V AC-3)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP40 (with insulating surround) IP66 (with door coupling rotary handle)
DEGREE OF PROTECTION (TERMINATIONS)	IP10 (tunnel terminal) IP00 (terminations, phase isolator and strip terminal)
NUMBER OF POLES	Three-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 24 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 8 segments of 24 mm x 1 mm (2x) at box terminal Max. 10 segments of 16 mm x 0.8 mm at box terminal
LIFESPAN, ELECTRICAL	6500 operations at 400 V AC-3 7500 operations at 690 V AC-1 10000 operations at 400 V AC-1 5000 operations at 690 V AC-3 10000 operations at 415 V

	AC-1 6500 operations at 415 V AC-3
FUNCTIONS	Motor protection
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}) • Rated current = rated uninterrupted current: 80 A • Tripping class 10 A • IEC/EN 60947-4-1, IEC/EN 60947-2 • The circuit-breaker fulfills all requirements for AC-3 switching category.
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APPLICATION	Use in unearthed supply systems at 690 V
SHOCK RESISTANCE	20 g (half-sinusoidal shock 20 ms)
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	80 A
RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S)	1.9 kA
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	1.9 kA
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	1120 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	640 A
HANDLE TYPE	Rocker lever
INSTANTANEOUS CURRENT SETTING (II) - MAX	1120 A
INSTANTANEOUS	640 A

CURRENT SETTING (II) - MIN	
NUMBER OF OPERATIONS PER HOUR - MAX	120
OVERLOAD CURRENT SETTING (IR) - MAX	80 A
OVERLOAD CURRENT SETTING (IR) - MIN	63 A
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ	130 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ	130 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 525 V, 50/60 HZ	37.5 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 690 V, 50/60 HZ	5 kA
STANDARD TERMINALS	Screw terminal
OPTIONAL TERMINALS	Box terminal. Connection on rear. Tunnel terminal
RELEASE SYSTEM	Thermomagnetic release
SHORT-CIRCUIT TOTAL BREAKTIME	< 10 ms
TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE)	16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	25 mm ² - 185 mm ² (1x) at 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. 16 mm x 5 mm direct at switch rear-side connection Max. 24 mm x 8 mm direct at switch rear-side connection M8 at rear-side screw connection
TERMINAL CAPACITY (COPPER SOLID)	10 mm ² - 16 mm ² (1x) direct at switch rear-side

CONDUCTOR/CABLE)	connection 6 mm ² - 16 mm ² (2x) at box terminal 6 mm ² - 16 mm ² (2x) direct at switch rear-side connection 16 mm ² (1x) at tunnel terminal 10 mm ² - 16 mm ² (1x) at box terminal
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	25 mm ² - 70 mm ² (2x) direct at switch rear-side connection 25 mm ² - 185 mm ² (1x) at box terminal 25 mm ² - 185 mm ² (1x) direct at switch rear-side connection 25 mm ² - 70 mm ² (2x) at box terminal 25 mm ² - 185 mm ² (1x) at 1-hole tunnel terminal
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU (IEC/EN 60947) AT 400/415 V, 50/60 HZ	130 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ	330 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ	286 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 525 V, 50/60 HZ	105 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 690 V, 50/60 HZ	40 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ	330 kA
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS	6000 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS	8000 V
POWER LOSS	20.5 W

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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