



□□□□

Eaton 103028

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 5A, N1-S5-CNA

□□□□

PRODUCT NAME	Eaton Moeller series NZM - Molded case circuit breaker
CATALOG NUMBER	103028
PRODUCT LENGTH/DEPTH	88 mm
PRODUCT HEIGHT	165.5 mm
PRODUCT WIDTH	90 mm
PRODUCT WEIGHT	1.046 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	Specially designed for North America UL (File No. E31593) UL/CSA CSA (Class No. 1432-01) CSA certified CSA-C22.2 No. 5-09 UL listed CSA (File No. 22086) UL (Category Control Number DKPU2) UL 489

AMPERAGE RATING	5 A
VOLTAGE RATING	690 V - 690 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.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND	Meets the product

	eaton-circuit-breaker-nzm-mccb-characteristic-curve-058.eps
CHARACTERISTIC CURVE	eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve-002.eps
	eaton-circuit-breaker-nzm-mccb-characteristic-curve.eps
□□□□□	eaton-circuit-breaker-switch-disconnector-nzmb-il01203004z.pdf
	eaton-circuit-breaker-nzm-mccb-dimensions-017.eps
□□	eaton-circuit-breaker-switch-nzm-mccb-dimensions-014.eps
	eaton-circuit-breaker-switch-nzm-mccb-3d-drawing-006.eps

CREEPAGE DISTANCES	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
LIFESPAN, MECHANICAL	20000 operations
MOUNTING METHOD	Built-in device fixed built-in technique Fixed
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	0.69 W
ISOLATION	500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary 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 DIRECT CONTACT	Finger and back-of-hand proof to VDE 0106 part 100
RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATING	1.1 kW

POWER AT AC-3, 230 V	
RATED OPERATING POWER AT AC-3, 400 V	2.2 kW
SWITCH OFF TECHNIQUE	Magnetic
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
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. 9 segments of 9 mm x 0.8 mm at box terminal Min. 2 segments of 9 mm x 0.8 mm at box terminal
LIFESPAN, ELECTRICAL	5000 operations at 690 V AC-3 7500 operations at 400 V AC-3 7500 operations at 415 V AC-3
FUNCTIONS	Short-circuit protection
TYPE	Circuit breaker
SPECIAL FEATURES	• Rated current = rated uninterrupted current: 5 A • This circuit-breaker is only allowed to be used for UL/CSA applications. • Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r

APPLICATION	Branch circuits, feeder circuits
SHOCK RESISTANCE	20 g (half-sinusoidal shock 20 ms)
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	5 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	55 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	30 A
HANDLE TYPE	Rocker lever
INSTANTANEOUS CURRENT SETTING (II) - MAX	55 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	30 A
NUMBER OF OPERATIONS PER HOUR - MAX	120
OVERLOAD CURRENT SETTING (IR) - MAX	0 A
OVERLOAD CURRENT SETTING (IR) - MIN	0 A
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
STANDARD TERMINALS	Box terminal
RATED OPERATING VOLTAGE UE (UL) - MAX	480 Y / 277 V
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 (CONTROL CABLE)	14 mm ² - 18 mm ² (1x) 16 mm ² - 18 mm ² (2x)
TERMINAL CAPACITY (COPPER BUSBAR)	M6 at rear-side screw connection Max. 16 mm x 5 mm direct at switch rear-side connection Min. 12 mm x 5 mm direct

	at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	6 mm² - 12 mm² (1x) at box terminal 6 mm² - 12 mm² (1x) direct at switch rear-side connection 6 mm² - 9 mm² (2x) direct at switch rear-side connection 6 mm² (1x) at tunnel terminal
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	4 mm² - 2/0 mm² (1x) direct at switch rear-side connection 4 mm² - 2/0 mm² (1x) at box terminal 4 mm² - 3/0 mm² (1x) at tunnel terminal
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU (IEC/EN 60947) AT 400/415 V, 50/60 HZ	50 kA
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS	6000 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS	6000 V
POWER LOSS	0.8 W

□□□□:
□□□□:
□□□:
□□: