Eaton 290375

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 3p, 630A 1000V, VE630-S1

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker electronic
CATALOG NUMBER	290375
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	210 mm
PRODUCT WEIGHT	21 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC

Powering Business Worldwide

AMPERAGE RATING	630 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

CHARACTERISTIC CURVE	eaton-circuit-breaker-nzm-mccb-characteristic-curve-048.eps eaton-circuit-breaker-nzm-mccb-characteristic-curve-049.eps
	eaton-circuit-breaker-basic-unit-nzmn4-il01210010z.pdf
	eaton-circuit-breaker-nzm-mccb-dimensions-022.eps eaton-circuit-breaker-switch-nzm-mccb-3d-drawing-003.eps

	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 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	49 W
UTILIZATION CATEGORY	B
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	0

CLOSED CONTACTS)	
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
DEGREE OF PROTECTION	IP20
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
LIFESPAN, MECHANICAL	10000 operations
OVERVOLTAGE CATEGORY	III
NUMBER OF POLES	Three-pole
TERMINAL CAPACITY (COPPER STRIP)	Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) 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 Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) 10 segments of 80 mm x 1 mm (2x) at rear-side width extension Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal
LIFESPAN, ELECTRICAL	500 operations at 1000 V AC-1
FUNCTIONS	Systems, cable, selectivity and generator protection
TYPE	Circuit breaker
SPECIAL FEATURES	• Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release • R.m.s. value measurement and “thermal memory” • Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases)

	• Adjustable delay time tsd: Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms • i^2t constant function: switchable • NZM4...S1 terminal type: Insulated busbar connection (NZM4-XKS screw connection) • Rated current = rated uninterrupted current: 630 A
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Front side
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	630 A
RELEASE SYSTEM	Electronic release
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 DELAYED SETTING - MAX	6300 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MIN	630 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	7560 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	1260 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)	Max. 80 mm x 10 mm (2x) at rear-side width extension Min. 60 mm x 10 mm at rear-side width extension Min. 25 mm x 5 mm at rear-side 1-hole module plate Max. 50 mm x 10 mm (2x)

	direct at switch rear-side connection Max. 80 mm x 10 mm (2x) direct at switch rear-side connection 50 mm x 10 mm (2x) at rear-side 2-hole module plate M10 at rear-side screw connection Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate Min. 25 mm x 5 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	185 mm^2 - 240 mm^2 (1x) at rear-side 1-hole module plate 50 mm^2 (4x) at rear-side 2-hole module plate 70 mm^2 - 185 mm^2 (2x) at rear-side 1-hole module plate 70 mm^2 - 240 mm^2 (6x) at rear-side width extension 50 mm^2 - 240 mm^2 (4x) at 4-hole tunnel terminal 240 mm^2 (2x) at rear-side width extension 35 mm^2 - 185 mm^2 (4x) at rear-side 2-hole module plate
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	50 mm^2 - 240 mm^2 (4x) at 4-hole tunnel terminal
HANDLE TYPE	Rocker lever
SHORT DELAY CURRENT SETTING (ISD) - MAX	6300 A
SHORT DELAY CURRENT SETTING (ISD) - MIN	630 A
INSTANTANEOUS CURRENT SETTING (II) - MAX	7560 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	1260 A
NUMBER OF OPERATIONS PER HOUR - MAX	60
OVERLOAD CURRENT SETTING (IR) - MAX	630 A
OVERLOAD CURRENT	315 A

SETTING (IR) - MIN	
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	8000 V

(UIMP) AT MAIN CONTACTS	
RATED INSULATION VOLTAGE (UI)	1000 V AC

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:

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