

Eaton 179330

Eaton Moeller series NZM - Molded Case
Circuit Breaker. Molded Case Switch 4p
1200A 1500VDC UL

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	179330
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	280 mm
PRODUCT WEIGHT	22 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	CE UL 489B UL listed UL489B CCC UL (File No. E471671) IEC 60947-3 CE marking

AMPERAGE RATING	1200 A
VOLTAGE RATING	1500 V - 1500 V
CIRCUIT BREAKER FRAME TYPE	N4
FEATURES	Version as emergency stop installation Motor drive optional Version as maintenance-/service switch Optionally with XR remote operator. Can be optionally controlled remotely with XU/XA shunt release. Version as main switch
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	Meets the product

DECLARATIONS OF CONFORMITY	DA-DC-03 N4
MCAD MODEL	n4_4_pv_na.dwg n4_4_pv_na.stp
	eaton-molded-case-switch-n4-4-s1-s15-pv-na-il012055zu.pdf
	eaton-circuit-breaker-nzm-switch-disconnector-dimensions.eps eaton-circuit-breaker-nzm-moulded-case-switch-3d-drawing-002.eps eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-004.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-002.eps

ULTRA-VIOLET (UV) RADIATION	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 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 Intermediate mounting Distribution board installation Ground mounting
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	231 W
UTILIZATION CATEGORY	DC-21 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	34 kA

DEGREE OF PROTECTION	IP20
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
CURRENT RATING (IU) AT 40°C WITH TERMINAL JUMPERS	1200 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	1200 A
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
RATED INSULATION VOLTAGE (UI)	1500 V
RATED OPERATING POWER AT AC-23, 400 V	0 kW
RATED OPERATING POWER AT AC-3, 400 V	0 kW
SWITCH POSITIONS	I, +, 0
LIFESPAN, MECHANICAL	10000 operations
OVERVOLTAGE CATEGORY	III
RATED OPERATIONAL CURRENT	1200 CSA (DC-21B)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal

	10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Max. 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 NA: same as for IEC
HANDLE COLOR	Black
LIFESPAN, ELECTRICAL	500 operations
FUNCTIONS	Interlockable Voltage release optional Photovoltaic applications Disconnectors/main switches
TYPE	DC switch-disconnector Switch-disconnector
SPECIAL FEATURES	Max. 50 % trip by shunt/undervoltage release of mechanical life span Main switch characteristics including positive drive to IEC/EN 60204, 0113. Isolating characteristics to IEC/EN 60947-3, 0660. N switch-disconnectors can be combined with NZM...-XU, NZM...-XA shunt releases, auxiliary contacts and NZM...-XR... remote operator. For DC switching, all 4 contacts must be connected in series -see information on jumper kit accessories Operating with ungrounded systems (e.g., IT), the installation must prevent a double ground fault Switch can not be combined with plug-in/withdrawable units and/or connection on rear, neither with connection width extensions, module plates, or band terminals in UL489B applications N4-4...-S15-DC feeder unit and outgoer from the bottom only. Suitable for 100%-rated application with

	enclosure minimum WxHxD of 1200 x 600 x 275 mm Does not provide any overcurrent protection. Rated current = rated uninterrupted current: 1200 A include jumpers at 65 °C
APPLICATION	Branch circuits, feeder circuits Open areas Utility buildings
NUMBER OF SWITCHES	1
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	0 kA
RATED OPERATING VOLTAGE (UE) AT AC - MAX	0 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	1200 A
RATED PERMANENT CURRENT AT AC-21, 400 V	0 A
RATED PERMANENT CURRENT AT AC-23, 400 V	0 A
RATED SHORT-TIME WITHSTAND CURRENT (T = 0.1 S)	34 kA
SWITCHING POWER AT 400 V	0 kW
HANDLE TYPE	Rocker lever
NUMBER OF OPERATIONS PER HOUR - MAX	60
STANDARD TERMINALS	Screw connection,Optional:Tunnel terminal,Rear-side connection,Strip connection
RATED OPERATING VOLTAGE UE (UL) - MAX	1500 V DC
TERMINAL CAPACITY (COPPER BUSBAR)	M10 at rear-side screw connection Min. 25 mm x 5 mm direct at switch rear-side connection Max. 50 mm x 10 mm (2x) direct at switch rear-side connection

	<p>Min. 25 mm x 5 mm at rear-side 1-hole module plate</p> <p>Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate</p> <p>50 mm x 10 mm (2x) at rear-side 2-hole module plate</p> <p>Min. 60 mm x 10 mm at rear-side width extension</p> <p>Max. 80 mm x 10 mm (2x) at rear-side width extension</p> <p>NA: same as for IEC</p>
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	<p>122 mm² - 185 mm² (1x) direct at switch rear-side connection</p> <p>50 mm² - 185 mm² (4x) direct at switch rear-side connection</p> <p>Min. 120 mm² - 300 mm² (1x) at rear-side 1-hole module plate</p> <p>Max. 95 mm² - 300 mm² (2x) at rear-side 1-hole module plate</p> <p>Min. 95 mm² - 185 mm² (2x) at rear-side 2-hole module plate</p> <p>Max. 35 mm² - 185 mm² (4x) at rear-side 2-hole module plate</p> <p>50 mm² - 240 mm² (4x) at 4-hole tunnel terminal</p> <p>300 mm² (4x) at rear-side width extension</p> <p>95 mm² - 240 mm² (6x) at rear-side width extension</p> <p>NA: kcmil 250 - kcmil 350 (1x) direct at switch rear-side connection</p> <p>NA: AWG 0 - kcmil 350 (4x) direct at switch rear-side connection</p> <p>NA: min. kcmil 250 - kcmil 600 (1x) at rear-side 1-hole module plate</p> <p>NA: max. AWG 3/0 - kcmil 600 (2x) at rear-side 1-hole module plate</p> <p>NA: min. AWG 3/0 - kcmil 350 (2x) at rear-side 2-hole module plate</p> <p>NA: max. AWG 2 - kcmil 350 (4x) at rear-side 2-hole</p>

	module plate NA: AWG 0- kcmil 500 (4x) at 4-hole tunnel terminal NA: kcmil 600 mm ² (4x) at rear-side width extension NA: AWG 3/0 - kcmil 500 (6x) at rear-side width extension
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	Min. 185 mm ² - 240 mm ² (1x) at rear-side 1-hole module plate Max. 70 mm ² - 185 mm ² (2x) at rear-side 1-hole module plate 50 mm ² (4x) at rear-side 2- hole module plate 240 mm ² (2x) at rear-side width extension 70 mm ² - 240 mm ² (6x) at rear-side width extension NA: aluminum conductor not applicable

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

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