

Specifications



Eaton 179325

Eaton Moeller series NZM - Molded Case Circuit Breaker. Molded Case Switch 4p 800A 1000VDC UL

General specifications

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	179325
MODEL CODE	N4-4-800-S1-PV-NA
EAN	4015081744114
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	280 mm
PRODUCT WEIGHT	22.723 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC 60947-3 UL489B CE CCC UL listed UL 489B CE marking UL (File No. E471671)



Powering Business Worldwide

Product specifications

AMPERAGE RATING	800 A
VOLTAGE RATING	1000 V - 1000 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

Resources

BROCHURES	eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf eaton-digital-nzm-brochure-br013003en-en-us.pdf
CATALOGUES	eaton-digital-nzm-catalog-ca013003en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-switch-disconnector-declaration-of-conformity-eu250128en.pdf
DRAWINGS	eaton-circuit-breaker-nzm-switch-disconnector-dimensions.eps eaton-circuit-breaker-nzm-moulded-case-switch-3d-drawing-002.eps eaton-circuit-breaker-nzm-moulded-case-switch-3d-drawing.eps eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-004.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-002.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps
ECAD MODEL	DA-CE-ETN.N4-4-800-S1-PV-NA
INSTALLATION INSTRUCTIONS	eaton-molded-case-switch-n4-4-s1-s15-pv-na-il012055zu.pdf
INSTALLATION VIDEOS	The new digital NZM Range Introduction of the new digital circuit breaker NZM
MCAD MODEL	n4_4_pv_na.dwg n4_4_pv_na.stp
PEP ECO-PASSPORT	eaton-switch-disconnectors-pep-eato-00201-v0101-en.pdf

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 Distribution board installation Intermediate mounting Ground mounting
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	95 W
UTILIZATION CATEGORY	DC-22 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	34 kA

TECHNICAL DATA SHEETS

[eaton-nzm-technical-information-sheet](#)

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	800 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	800 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)	1250 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	800 A (DC 22-A)
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	Photovoltaic applications Interlockable Disconnectors/main switches Voltage release optional
TYPE	DC switch-disconnectorSwitch-disconnector
SPECIAL FEATURES	Max. 50 % trip by shunt/undervoltage release of mechanical life spanMain switch characteristics including positive drive to IEC/EN 60204, VDE 0113.Isolating characteristics to IEC/EN 60947-3, VDE 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 faultCannot be combined with plug-in/withdrawable units and/or connection on rear, neither with connection width extensions, module plates, or band terminals in UL489B applicationsN4-4...-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 mmNo overcurrent protection.Rated current = rated uninterrupted current: 800 A include jumpers at 65 °C
APPLICATION	Branch circuits, feeder circuitsOpen areasUtility 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)	800 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	1000 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

**TERMINAL CAPACITY
(COPPER STRANDED
CONDUCTOR/CABLE)**

connection
Min. 25 mm x 5 mm at
rear-side 1-hole module
plate
Max. 50 mm x 10 mm (2x)
at rear-side 1-hole module
plate
50 mm x 10 mm (2x) at
rear-side 2-hole module
plate
Min. 60 mm x 10 mm at
rear-side width extension
Max. 80 mm x 10 mm (2x)
at rear-side width
extension
NA: same as for IEC

123 mm² - 185 mm² (1x)
direct at switch rear-side
connection
50 mm² - 185 mm² (4x)
direct at switch rear-side
connection
Min. 120 mm² - 300 mm²
(1x) at rear-side 1-hole
module plate
Max. 95 mm² - 300 mm²
(2x) at rear-side 1-hole
module plate
Min. 95 mm² - 185 mm² (2x)
at rear-side 2-hole module
plate
Max. 35 mm² - 185 mm²
(4x) at rear-side 2-hole
module plate
50 mm² - 240 mm² (4x) at 4-
hole tunnel terminal
300 mm² (4x) at rear-side
width extension
95 mm² - 240 mm² (6x) at
rear-side width extension
NA: kcmil 250 - kcmil 350
(1x) direct at switch rear-
side connection
NA: AWG 0 - kcmil 350 (4x)
direct at switch rear-side
connection
NA: min. kcmil 250 - kcmil
600 (1x) at rear-side 1-hole
module plate
NA: max. AWG 3/0 - kcmil
600 (2x) at rear-side 1-hole
module plate
NA: min. AWG 3/0 - kcmil
350 (2x) at rear-side 2-hole
module plate
NA: max. AWG 2 - kcmil 350

	(4x) at rear-side 2-hole 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:

DATE:



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