

Specifications



Photo is representative

Eaton 127732

Eaton Moeller series NZM - Molded Case Circuit Breaker. Switch-disconnector 4p 160A 1000VDC

General specifications

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	127732
MODEL CODE	N2-4-160-S1-DC
EAN	4015081251421
PRODUCT LENGTH/DEPTH	149 mm
PRODUCT HEIGHT	184 mm
PRODUCT WIDTH	140 mm
PRODUCT WEIGHT	2.87 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC
GLOBAL CATALOG	127732



Powering Business Worldwide

Product specifications

AMPERAGE RATING	160 A
VOLTAGE RATING	1000 V - 1000 V
CIRCUIT BREAKER FRAME TYPE	N2
FEATURES	Version as maintenance-/service switch Version as main switch Remote operation with shunt releases / remote operator Version as emergency stop installation Motor drive optional
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

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
DECLARATIONS OF CONFORMITY	eaton-switch-disconnector-declaration-of-conformity-eu250129en.pdf
DRAWINGS	eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps eaton-circuit-breaker-nzm-mccb-dimensions-035.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-002.eps eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-002.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-002.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-003.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-003.eps
ECAD MODEL	DA-CE-ETN.N2-4-160-S1-DC
INSTALLATION INSTRUCTIONS	eaton-circuit-breaker-n2-4-s1-15-dc-il01207001z.pdf
INSTALLATION VIDEOS	Introduction of the new digital circuit breaker NZM

	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	Distribution board installation Built-in device fixed built-in technique Intermediate mounting Ground mounting Fixed
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	27 W
UTILIZATION CATEGORY	DC-22 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	3.6 kA
DEGREE OF PROTECTION	Other
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
AMBIENT OPERATING TEMPERATURE - MAX	70 °C

	The new digital NZM Range
MCAD MODEL	DA-CS-nzm2_4p DA-CD-nzm2_4p
PEP ECO-PASSPORT	eaton-switch-disconnectors-pep-eaton-00241-v0101-en.pdf
TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

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	160 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	160 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	20000 operations
OVERVOLTAGE CATEGORY	III
RATED OPERATIONAL CURRENT	160 A (DC 22-A)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 16 mm x 0.8 mm at box terminal 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 15.5 mm x 0.8 mm (2x) at box terminal
HANDLE COLOR	Black
FUNCTIONS	Interlockable

	Photovoltaic applications Voltage release optional Disconnectors/main switches
TYPE	DC switch-disconnector

SPECIAL FEATURES

- IEC/EN 60947-3
- CCC China
Compulsory
Certificate
- Main switch
characteristics
including positive
drive to IEC/EN
60204 and VDE
0113.
- Isolating
characteristics to
IEC/EN 60947-3 and
VDE 0660.
- N switch-
disconnectors can
be combined with
NZM...-XU, NZM...-
XA shunt releases
and auxiliary
contacts as well as
with NZM...-XR...
remote operator.
- For DC switching,
all 4 contacts must
be connected in
series. Refer to the
information on
jumper kit
accessories.
- Supplied as
standard: Screw
connection
- box terminal
optional.
- When working with
ungrounded
systems (e.g., IT),
the installation
must ensure that a
double ground
fault will be
impossible.
- Switch can not be
combined with
plug-
in/withdrawable
units and/or
connection on rear.
- N4-4-...-S15-DC
feeder unit and
outgoer from the
bottom only.

- Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release
- Rated current = rated uninterrupted current: 160 A
- Values for rated uninterrupted current at 65 °C include jumpers.

APPLICATION	• Open areas • Utility buildings
NUMBER OF SWITCHES	1
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	0 kA
RATED CONDITIONAL SHORT-CIRCUIT CURRENT WITH BACK-UP FUSE	15 kA at 1000 V 200 AgR
RATED OPERATING VOLTAGE (UE) AT AC - MAX	0 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	160 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 = 1 S)	3.6 kA
SWITCHING POWER AT 400 V	0 kW
HANDLE TYPE	Rocker lever
NUMBER OF OPERATIONS PER HOUR - MAX	120
STANDARD TERMINALS	Screw terminal
SHORT-CIRCUIT PROTECTIVE DEVICE FUSES - MAX	200 A gR
TERMINAL CAPACITY (COPPER BUSBAR)	Min. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw

	connection Max. 24 mm x 8 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 4 mm ² - 16 mm ² (2x) direct at switch rear-side connection 4 mm ² - 16 mm ² (2x) at box terminal 4 mm ² - 16 mm ² (1x) at box terminal 16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE)	16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	25 mm ² - 185 mm ² (1x) at tunnel terminal 25 mm ² - 185 mm ² (1x) at box terminal 25 mm ² - 70 mm ² (2x) at box terminal 25 mm ² - 185 mm ² (1x) direct at switch rear-side connection 25 mm ² - 70 mm ² (2x) direct at switch rear-side connection
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	25 mm ² - 185 mm ² (1x) at tunnel terminal

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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