Specifications

Eaton 127732

Catalog Number: 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
	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

Powering Business Worldwide

Product specifications

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

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

DA-DC-03_N2

Drawings

eaton-circuit-breaker-nzm-mccb-dimensions-035.eps

eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps

eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-002.eps

eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-003.eps

eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-002.eps

eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps

eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing.eps

eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-002.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

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

mCAD model

DA-CD-nzm2_4p

DA-CS-nzm2_4p

Technical data sheets

eaton-nzm-technical-information-sheet

uninterrupted current: 160 A

Values for rated

uninterrupted current at 65

°C include jumpers.

Application

Open areas

Utility buildings

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 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

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 segements 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

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 mm² - 16 mm² (1x) direct at switch rear-side connection
4 mm² - 16 mm² (2x) direct at switch rear-side connection
4 mm² - 16 mm² (2x) at box terminal
4 mm² - 16 mm² (1x) at box terminal
16 mm² (1x) at tunnel terminal

Terminal capacity (aluminum solid conductor/cable)

16 mm² (1x) at tunnel terminal

Terminal capacity (copper stranded conductor/cable)

25 mm² - 185 mm² (1x) at tunnel terminal
25 mm² - 185 mm² (1x) at box terminal
25 mm² - 70 mm² (2x) at box terminal
25 mm² - 185 mm² (1x) direct at switch rear-side connection
25 mm² - 70 mm² (2x) direct at switch rear-side connection

Terminal capacity (aluminum stranded conductor/cable)

25 mm² - 185 mm² (1x) at tunnel terminal



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