Specifications

Eaton 265924

Catalog Number: 265924

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 1000A, H4-4-AE1000



General specifications

Product Name
Eaton Moeller series NZM molded case circuit breaker electronic

Catalog Number
265924

EAN
4015082659240

Product Length/Depth
401 mm

Product Height
207 mm

Product Width
280 mm

Product Weight
27 kg

Compliances
RoHS conform

Certifications
IEC
IEC/EN 60947

Powering Business Worldwide

Product specifications

Type

Circuit breaker

Special features

Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn)
Rated current = rated uninterrupted current: 1000 A
Set value in neutral conductor is synchronous with set value Ir of main pole.
R.m.s. value measurement and “thermal memory”

Application

Use in unearthed supply systems at 525 V

Amperage Rating

1000 A

Voltage rating

690 V - 690 V

Circuit breaker frame type

NZM4

Features

Protection unit
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.

Resources

Brochures

eaton-digital-nzm-brochure-br013003en-en-us.pdf

eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf

Catalogs

eaton-digital-nzm-catalog-ca013003en-en-us.pdf

Characteristic curve

eaton-circuit-breaker-nzm-mccb-characteristic-curve-047.eps

Drawings

eaton-circuit-breaker-nzm-mccb-dimensions-023.eps

eCAD model

ETN.265924.edz

Installation instructions

eaton-circuit-breaker-basic-unit-nzmn4-il01210010z.pdf

Installation videos

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

mCAD model

DA-CS-nzm4_4p

DA-CD-nzm4_4p

Technical data sheets

eaton-nzm-technical-information-sheet

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

Fixed

Built-in device fixed built-in technique

Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30

Damp heat, constant, to IEC 60068-2-78

Equipment heat dissipation, current-dependent

123 W

Utilization category

A (IEC/EN 60947-2)

Isolation

500 V AC (between auxiliary contacts and main contacts)

300 V AC (between the auxiliary contacts)

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 closed contacts)

0

Number of auxiliary contacts (normally open contacts)

0

Protection against direct contact

Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part

110

Degree of protection

IP20 (basic degree of protection, in the operating controls area)
IP20

Direction of incoming supply

As required

Electrical connection type of main circuit

Screw connection

Current rating of neutral conductor

200% of phase conductor

Lifespan, mechanical

10000 operations

Overvoltage category

III

Degree of protection (IP), front side

IP40 (with insulating surround)
IP66 (with door coupling rotary handle)

Degree of protection (terminations)

IP10 (tunnel terminal)
IP00 (terminations, phase isolator and strip terminal)

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
Min. 5 segments of 25 mm x 1 mm 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
10 segments of 50 mm x 1 mm (2x) at 1-hole module plate

Lifespan, electrical

2000 operations at 690 V AC-1
3000 operations at 415 V AC-1
1000 operations at 690 V AC-3
2000 operations at 400 V AC-3
3000 operations at 400 V AC-1
2000 operations at 415 V AC-3

Functions

System and cable protection

Shock resistance

15 g (half-sinusoidal shock 11 ms)

Position of connection for main current circuit

Front side

Rated operational current for specified heat dissipation (In)

1000 A

Release system

Electronic release

Short-circuit total breaktime

< 25 ms (415 V); < 35 ms (> 415 V)

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 non-delayed setting - max

12000 A

Short-circuit release non-delayed setting - min

2000 A

Terminal capacity (control cable)

0.75 mm² - 1.5 mm² (2x)
0.75 mm² - 2.5 mm² (1x)

Terminal capacity (copper busbar)

50 mm x 10 mm (2x) at rear-side 2-hole module plate
Min. 60 mm x 10 mm at rear-side width extension
Min. 25 mm x 5 mm direct at switch rear-side connection
Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate
Max. 80 mm x 10 mm (2x) 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
M10 at rear-side screw connection

Terminal capacity (copper solid conductor/cable)

300 mm² (4x) at rear-side width extension
95 mm² - 240 mm² (6x) at rear-side width extension
35 mm² - 185 mm² (4x) at rear-side 2-hole module plate
50 mm² - 240 mm² (4x) at 4-hole tunnel terminal
95 mm² - 185 mm² (2x) at rear-side 2-hole module plate
120 mm² - 300 mm² (1x) at rear-side 1-hole module plate
95 mm² - 300 mm² (2x) at rear-side 1-hole module plate

Terminal capacity (aluminum solid conductor/cable)

240 mm² (2x) at rear-side width extension
70 mm² - 240 mm² (6x) at rear-side width extension
70 mm² - 185 mm² (2x) at rear-side 1-hole module plate
185 mm² - 240 mm² (1x) at rear-side 1-hole module plate

50 mm² (4x) at rear-side 2-hole module plate

Terminal capacity (copper stranded conductor/cable)

50 mm² - 185 mm² (4x) direct at switch rear-side connection

120 mm² - 185 mm² (1x) direct at switch rear-side connection

Terminal capacity (aluminum stranded conductor/cable)

50 mm² - 240 mm² (4x) at 4-hole tunnel terminal

Handle type

Rocker lever

Short delay current setting (Isd) - max

0 A

Short delay current setting (Isd) - min

0 A

Instantaneous current setting (Ii) - max

12000 A

Instantaneous current setting (Ii) - min

2000 A

Number of operations per hour - max

60

Overload current setting (Ir) - max

1000 A

Overload current setting (Ir) - min

500 A

Overload current setting (Ir)

500 A - 1000 A

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 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

Optional terminals

Connection on rear. Strip terminal. Tunnel 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 (Uimp) at main contacts

8000 V

Rated insulation voltage (Ui)

1000 V AC

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