Specifications

Eaton 265985

Catalog Number: 265985

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 1600A, 1000A in 4th pole, N4-4-VE1600/1000



General specifications

Product Name	**Catalog Number**
Eaton Moeller series NZM molded case circuit breaker electronic	265985
	EAN
	4015082659851
Product Length/Depth	**Product Height**
401 mm	207 mm
Product Width	**Product Weight**
280 mm	27 kg
Compliances	**Certifications**
RoHS conform	IEC/EN 60947 IEC

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)
R.m.s. value measurement and “thermal memory”
Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases)
Adjustable delay time tsd
i^2t constant function: switchable
Set value in neutral conductor is synchronous with set value Ir of main pole.
Rated current = rated uninterrupted current: 1600 A
Reduced neutral conductor protection

Application

Use in unearthed supply systems at 525 V

Amperage Rating

1600 A

Voltage rating

690 V - 690 V

Circuit breaker frame type

NZM4

Features

Motor drive optional
Protection unit

10.10 Temperature rise

The panel builder is responsible for the temperature rise

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

Characteristic curve

eaton-circuit-breaker-nzm-mccb-characteristic-curve-048.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve-049.eps

Declarations of conformity

DA-DC-03_N4

Drawings

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

eCAD model

ETN.265985.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

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

Built-in device fixed built-in technique

Fixed

Climatic proofing

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

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

Equipment heat dissipation, current-dependent

284 W

Utilization category

B (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

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

Direction of incoming supply

As required

Electrical connection type of main circuit

Screw connection

Current rating of neutral conductor

1000 A

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. 5 segments of 25 mm x 1 mm at rear-side connection (punched)

10 segments of 80 mm x 1 mm (2x) at rear-side width extension

Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)

10 segments of 50 mm x 1 mm (2x) at 1-hole module plate

Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal

Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal

Lifespan, electrical

1000 operations at 690 V AC-3

3000 operations at 415 V AC-1

2000 operations at 415 V AC-3

2000 operations at 400 V AC-3

2000 operations at 690 V AC-1

3000 operations at 400 V AC-1

Functions

Systems, cable, selectivity and generator 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)

1600 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 delayed setting - max

16000 A

Short-circuit release delayed setting - min

1600 A

Short-circuit release non-delayed setting - max

19200 A

Short-circuit release non-delayed setting - min

3200 A

Terminal capacity (control cable)

0.75 mm² - 2.5 mm² (1x)

0.75 mm² - 1.5 mm² (2x)

Terminal capacity (copper busbar)

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

Min. 60 mm x 10 mm at rear-side width extension

M10 at rear-side screw connection

Max. 50 mm x 10 mm (2x) direct at switch rear-side connection

Min. 25 mm x 5 mm direct at switch rear-side connection

50 mm x 10 mm (2x) at rear-side 2-hole module plate

Terminal capacity (copper solid conductor/cable)

300 mm² (4x) at rear-side width extension

95 mm² - 240 mm² (6x) at rear-side width extension

120 mm² - 300 mm² (1x) at rear-side 1-hole module plate

95 mm² - 185 mm² (2x) at rear-side 2-hole module plate

35 mm² - 185 mm² (4x) at rear-side 2-hole module plate

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

95 mm² - 300 mm² (2x) at rear-side 1-hole module plate

Terminal capacity (aluminum solid conductor/cable)

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

240 mm² (2x) 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

70 mm² - 240 mm² (6x) at rear-side width extension

Terminal capacity (copper stranded conductor/cable)

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

50 mm² - 185 mm² (4x) 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

16000 A

Short delay current setting (Isd) - min

1600 A

Instantaneous current setting (Ii) - max

19200 A

Instantaneous current setting (Ii) - min

3200 A

Number of operations per hour - max

60

Overload current setting (Ir) - max

1600 A

Overload current setting (Ir) - min

800 A

Overload current setting (Ir)

500 A - 1000 A

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz

37 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz

37 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz

26 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz

19 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz

15 kA

Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz

105 kA

Rated short-circuit making capacity Icm at 440 V, 50/60 Hz

74 kA

Rated short-circuit making capacity Icm at 525 V, 50/60 Hz

53 kA

Rated short-circuit making capacity Icm at 690 V, 50/60 Hz

40 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

105 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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