Specifications

Eaton 107652

Catalog Number: 107652

Eaton Series NZM motor protection circuit breaker, NZM2-frame, NZMB2, Magnetic only trip type, Three-pole, 2.4A, 25 kAIC, Motor protection without overload release



General specifications

Product Name
Eaton Moeller series NZM molded case circuit breaker magnetic

Catalog Number
107652

EAN
4015081073184

Product Length/Depth
149 mm

Product Height
195 mm

Product Width
105 mm

Product Weight
2.345 kg

Compliances
RoHS conform

Certifications
UL Listed
UL/CSA
CSA certified
CSA (Class No. 1432-01)
CSA (File No. 22086)
Specially designed for North America
UL (Category Control Number DKPU2)
UL (File No. E31593)
UL 489
CSA-C22.2 No. 5-09

Powering Business Worldwide

Product specifications

Type

Circuit breaker

Special features

Rated current = rated uninterrupted current: 2.4 A
This circuit-breaker is only allowed to be used for UL/CSA applications.
Motor protection in conjunction with contactor and overload relay
With short-circuit release
Without overload release Ir

Application

Branch circuits, feeder circuits

Amperage Rating

2.4 A

Voltage rating

440 V - 440 V

Trip Type

Magnetic only

Circuit breaker type

NZMB2

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.

10.13 Mechanical function

The device meets the requirements, provided the information in

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-characteristic-power-defense-mccb-characteristic-curve-030.eps

eaton-circuit-breaker-nzm-mccb-characteristic-curve-052.eps

eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-034.eps

Drawings

eaton-circuit-breaker-nzm-mccb-dimensions-019.eps

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

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

Installation videos

The new digital NZM Range

Introduction of the new digital circuit breaker NZM

mCAD model

DA-CS-nzm2_3p

DA-CD-nzm2_3p

Technical data sheets

eaton-nzm-technical-information-sheet

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.

Frame

NZM2

Pollution degree

3

Class

Motor protection without overload release

Mounting Method

Fixed

Built-in device fixed built-in technique

DIN rail (top hat rail) mounting optional

Climatic proofing

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

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

Equipment heat dissipation, current-dependent

7.78 W

Interrupt rating

25 kAIC

Isolation

500 V AC (between auxiliary contacts and main 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

Direction of incoming supply

As required

Electrical connection type of main circuit

Frame clamp

Lifespan, mechanical

20000 operations

Overvoltage category

III

Degree of protection (IP), front side

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

Degree of protection (terminations)

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

Number of poles

Three-pole

Terminal capacity (copper strip)

Min. 2 segments of 9 mm x 0.8 mm at box terminal
Max. 10 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
Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched)

Lifespan, electrical

7500 operations at 400 V AC-1
6500 operations at 415 V AC-3

Functions

Short-circuit protection

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Position of connection for main current circuit

Front side

Rated operational current for specified heat dissipation (In)

2.4 A

Power loss

7.8 W

Release system

Thermomagnetic release

Short-circuit total breaktime

< 10 ms

Short-circuit release non-delayed setting - max

33.6 A

Short-circuit release non-delayed setting - min

19.2 A

Terminal capacity (control cable)

14 mm² - 18 mm² (1x)

Terminal capacity (copper busbar)

M8 at rear-side screw connection

Max. 20 mm x 5 mm direct at switch rear-side connection

Min. 16 mm x 5 mm direct at switch rear-side connection

Terminal capacity (copper solid conductor/cable)

6 mm² - 12 mm² (1x) at box terminal

6 mm² - 11 mm² (1x) direct at switch rear-side connection

16 mm² (1x) at tunnel terminal

Terminal capacity (aluminum solid conductor/cable)

16 mm² (1x) at tunnel terminal

Terminal capacity (copper stranded conductor/cable)

4 mm² - 350 mm² (1x) at tunnel terminal

4 mm² - 350 mm² (1x) at box 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

14 A

Instantaneous current setting (Ii) - min

8 A

Number of operations per hour - max

120

Overload current setting (Ir) - max

0 A

Overload current setting (Ir) - min

0 A

Standard terminals

Box terminal

Rated operating voltage Ue (UL) - max

600Y/347 V, 480 V

Rated impulse withstand voltage (Uimp) at auxiliary contacts

6000 V

Rated impulse withstand voltage (Uimp) at main contacts

8000 V

Rated insulation voltage (Ui)

690 V AC

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