Specifications

Eaton 270333

Catalog Number: 270333

Eaton Moeller series NZM - Molded Case Circuit Breaker. Fieldbus connection, profibus-DPV1-Slave



General specifications

Product Name
Eaton Moeller series NZM electronic accessory

Catalog Number
270333

EAN
4015082703332

Product Length/Depth
60 mm

Product Height
90 mm

Product Width
36 mm

Product Weight
0.102 kg

Compliances
RoHS conform

Certifications
IEC 60068-2-27
IEC/EN 61000-4
EN 55011
EN 55022
IEC 60068-2-6

Powering Business Worldwide

Product specifications

Used with

Diagnostics, communication

Special features

10 V (Immunity to line-conducted interference to (IEC/EN 61000-4-6))
Automatic search up to 12 MBit/s
EN 50178, UL 508, CSA C22.2, No. 142 (insulation resistance, clearance in air and creepage distances)
EN 55011 Class B, EN 55022 Class B (electromagnetic compatibility (EMC), radio interference suppression)
Standard screwdriver 0.8mm x 3.5 mm
Take appropriate measures to prevent condensation

Type

Accessory

Voltage rating

24 V (-15/+20 %)

Accessories required

Separate external bus termination

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.

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

Drawings

eaton-electrical-timers-control-nzm-mccb-dimensions-002.eps

eaton-electrical-timers-connection-nzm-mccb-3d-drawing.eps

eCAD model

DA-CE-ETN.NZM-XDMI-DPV1

Installation instructions

IL01219007Z

Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

Technical data sheets

eaton-nzm-technical-information-sheet

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

2 (EMC)

Burst impulse

2 kV

Isolation

Between bus and power supply (simple), between bus and power supply and NZM-XDMI612 (safe potential isolation)

Accessory/spare part type

Diagnostics and communication

Display

Profibus-DP LED (BUS): red

Explosion safety category for dust

Other

Explosion safety category for gas

None

Mounting method

Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)
Front build in possible
Rail mounting possible

Voltage type

DC

Acyclic network services

Display/match protection settings, event list, identification, hours of operation, switching operations, time

Mounting position

Vertical or horizontal

Dimensions

35.5 mm x 90 mm x 58 mm

Interface type

RS485

Safety performance level (EN ISO 13849-1)

None

SIL (IEC 61508)

None

Vibrations at constant acceleration 2 g (IEC/EN 60068-2-6)

57 Hz - 150 Hz

Vibrations at constant amplitude .15 mm (IEC/EN 61131-2:2008)

10 Hz - 57 Hz

Ambient operating temperature - min

-25 °C

Ambient storage temperature - max

70 °C

Ambient storage temperature - min

40 °C

Drop height (IEC/EN 60068-2-31)

50 mm

EMC of electromagnetic fields rfi (IEC EN 61000-4-3)

10 V/m

EMC of electrostatic air discharge level 3 (IEC/EN 61000-4-2)

8 KV

Heat dissipation of power supply at 24 V DC

4.8 W

Bus addresses

1 - 26 via DMI

EMC of electrostatic contact discharge level 3 (IEC/EN 61000-4-2)

6 KV

Power supply admissable - max

28.8 VDC

Degree of protection

IP20

Insulation resistance

acc. to EN 50178

Terminal capacity (cable)

0.2 mm² - 2.5 mm² with ferrule

AWG 22 - AWG 12 with ferrule

Terminal capacity (solid wire)

0.2 mm² - 4 mm² (AWG 22 - AWG 12)

Functions

Protection against polarity reversal, AS-I power supply

PROFIBUS-DP slave

Corrosion resistance

1 cm³/m³ (4 days SO_2)

10 cm^3/m^3 (4 days SO_2)

Shock resistance

18 impacts (IEC 60068-2-27)

System accessory

No

Voltage dips

10 ms

Protocol

PROFIBUS-DP

PROFIBUS

Operating air pressure - max

1080 hPa

Operating air pressure - min

795 hPa

Packaged free fall height (IEC/EN 60068-2-32)

1 m

Power supply admissable - min

20.4 VDC

Tightening torque

0.6 Nm

Power supply status display

Power LED (POW): green

Relative humidity - max

95 %

Residual ripple - max

5 %

Supply voltage at AC, 50 Hz - max

0 V

Supply voltage at AC, 50 Hz - min

0 V

Supply voltage at AC, 60 Hz - max

0 V

Supply voltage at AC, 60 Hz - min

0 V

Supply voltage at DC - max

0 V

Supply voltage at DC - min

0 V

Rated current of power supply

200 mA (24 V DC)

Services (cyclic)

Remote operator actuation, display/operation NZM-XDMI612
inputs/outputs, motor starter functions
Status ON/OFF/tripped (detailed), load early warnings, phase currents I1/I2/I3 [A]

EMC of power pulses/surge level 2 (IEC/EN 61000-4-5)

0.5 kV (supply cables, symmetrical)

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