Specifications

# Eaton 167122




## Catalog Number: 167122

Eaton Moeller series xEffect - FRCmM-NA RCCB. Residual current circuit breaker (RCCB), 25A, 2p, 300mA, type G/A, UL

### General specifications

**Product Name**
Eaton Moeller series xEffect - FRCmM-NA RCCB

**Catalog Number**
167122

**Model Code**
FRCMM-25/2/03-G/A-NA

**EAN**
4015081636235

**Product Length/Depth**
76.2 mm

**Product Height**
55.88 mm

**Product Width**
88.9 mm

**Product Weight**
0.1814 kg

**Compliances**
RoHS conform

**Certifications**
UL 1053
IEC 61008
EN 61008
ÖVE E 8601
EN45545-2
IEC 61373

**Catalog Notes**
Additionally protects against special forms of residual pulsating DC which have not been smoothed.

Powering Business Worldwide

## Product specifications

### Used with

Residual current circuit breakers
FRCmM-NA
Type G/A ( VE E 8601)

### Type

Current test marks as per inscription
Maximum operating temperature is 55 °C:
Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
The maximum operating current of back-up fuse must not exceed the residual current circuit breaker's rated operational current

### Special features

FRCmM-NA
Residual current circuit breakers
Type G/A (ÖVE E 8601)

### Application

Switchgear for export to North America (UL-listed)

### Amperage Rating

25 A

### Features

Additional equipment possible
Residual current circuit breaker

### 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

## Resources

### Application notes

eaton-rcd-application-guide-br019003en-en-us.pdf

### Brochures

UL 1053 DIN Rail RCCB

### Catalogs

eaton-xeffect-frcmm-na-rccb-catalog-ca003019en-en-us.pdf

eaton-xeffect-industrial-switchgear-range-catalog-ca003002en-en-us.pdf

### Declarations of conformity

03_FRCm.-NA_181019

DA-DC-03_FRCm

### Drawings

eaton-circuit-breaker-xeffect-frcmm-na-rccb-dimensions.eps

### eCAD model

ETN.FRCMM-25_2_03-G_A-NA

### Installation instructions

MA180503312

### mCAD model

eaton-f9_ul1053_2p-drawing.dwg

eaton-f9_ul1053_2p-3-d-model.stp

### Specifications and datasheets

Eaton Specification Sheet - 167122

### Wiring diagrams

eaton-xeffect-frcmm-rccb-wiring-diagram.jpg

eaton-circuit-breaker-xeffect-frcmm-na-rccb-wiring-diagram.eps

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.

### Fitted with:

Interlocking device

### Frame

45 mm

### Frequency rating

50 Hz / 60 Hz

### Pollution degree

2

### Mounting Method

DIN rail

Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715

### Climatic proofing

25-55 °C / 90-95% relative humidity according to IEC 60068-2

### Equipment heat dissipation, current-dependent

1.3 W

### Rated impulse withstand voltage (Uimp)

4 kV

### Rated short-time withstand current (Icw)

10 kA

### Admissible back-up fuse overload - max

25 A gG/gL

### Ambient humdity range

5 - 95 %

### Built-in width (number of units)

35 mm (2 SU)

### Short-circuit rating

Max. admissible back-up fuse: 63 A gG/gL, 70 A class J fuse (UL)

### Status indication

White / blue

Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

Terminals (top and bottom)

Lift terminals

Test circuit range

184 V AC - 250 V AC, 196 V AC - 305 V AC (UL)

Ambient operating temperature - max

40 °C

Ambient operating temperature - min

-25 °C

Built-in depth

70.5 mm

Connectable conductor cross section (multi-wired) - max

16 mm²

Connectable conductor cross section (multi-wired) - min

1.5 mm²

Connectable conductor cross section (solid-core) - max

35 mm²

Connectable conductor cross section (solid-core) - min

1.5 mm²

Fault current rating

300 mA

Heat dissipation per pole, current-dependent

0.65 W

Overvoltage tested - max

530 V

Permitted storage and transport temperature - max

60 °C

Permitted storage and transport temperature - min

-35 °C

Contact position indicator color

Red / green

Mounting position

As required

Lifespan, mechanical

10000 operations

Degree of protection

IP20

IP20, IP40 with suitable enclosure

### Impulse withstand current

3 kA (8/20 µs) surge-proof

### Number of poles

Two-pole

### Leakage current type

A

### Lifespan, electrical

4000 operations

### Functions

Short-time delayed tripping

### Pick-up current

200 mA

### Sensitivity type

Pulse-current sensitive

### Terminal capacity (cable)

M5 (with cross-recessed screw as defined in EN ISO 4757-Z2, PZ2)

### Rated fault current - max

0.3 A

### Rated fault current - min

0.3 A

### Rated insulation voltage (Ui)

440 V

### Rated operational current for specified heat dissipation (In)

25 A

### Rated operational voltage (Ue) - max

277 V

### Rated residual making and breaking capacity

500 A

### Surge current capacity

3 kA

### Width in number of modular spacings

2

### Voltage rating (IEC/EN 60947-2)

240 V AC / 415 V AC

### Voltage rating (UL)

480Y/277 V, 60 Hz

### Voltage type

AC

### Terminal capacity (solid wire)

1.5 mm² - 35 mm²

### Tripping time

10 ms delay at 50 Hz

8 ms delay at 60 Hz

Short time-delayed

### Rated short-circuit strength

10 kA with back-up fuse

5 kA (UL, as per CSA)

### Terminal capacity (stranded cable)

16 mm² (2x)

### RAL-number

7035

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