

# Eaton 102311

Catalog Number: 102311

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. FAZ-RT, 3-pole, tripping characteristic: D, rated current In: 20 A



### General specifications

Product Name

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB

Catalog Number

102311

EAN

4015081021871

Product Length/Depth

105 mm

Product Height

75.5 mm

Product Width

53.1 mm

Product Weight

0.371 kg

Compliances

RoHS conform

Certifications

IEC 60947-2  
UL 1077  
CSA Std. C22.2 No.235  
UL 489, CSA C22.2 No. 5  
UL 489  
CSA-C22.2 No. 5-09  
North America (UL listed, CSA certified)  
IEC/EN 60947-2  
UL (Category Control Number DIVQ)  
Specially designed for North America, suitable as BCPD  
CE marking  
UL (File No. E235139)  
CSA (File No. 204453)  
CSA (Class No. 1432-01)  
EN45545-2  
IEC 61373

Catalog Notes

Magnetic range for higher startup inrush

## Delivery program

### Application

Feeder circuits, branch circuits  
Switchgear for industrial and advanced commercial applications  
xEffect - Switchgear for industrial and advanced commercial applications

### Number of poles

Three-pole

### Number of poles (total)

3

### Number of poles (protected)

3

### Tripping characteristic

D

### Release characteristic

D

### Amperage Rating

20 A

### Type

FAZ-RT  
Miniature circuit breaker

## Technical data - electrical

### Voltage type

AC

### Voltage rating

277 V AC / 480 V AC

### Voltage rating at DC

60 V DC

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

415 V

### Voltage rating (UL)

480Y/277 V

### Rated operational voltage (Ue) - max

415 V

### Rated insulation voltage (Ui)

440 V

### Rated impulse withstand voltage (Uimp)

4 kV

### Frequency rating - min

50 Hz

### Frequency rating - max

60 Hz

### Rated switching capacity (IEC/EN 60947-2)

15 kA

### Rated short-circuit breaking capacity (EN 60898) at 230 V

0 kA

### Rated short-circuit breaking capacity (EN 60898) at 400 V

0 kA

### Rated short-circuit breaking capacity (IEC 60947-2) at 230 V

15 kA

### Rated short-circuit breaking capacity (IEC 60947-2) at 400 V

15 kA

### Selectivity class

3

### Overvoltage category

III

### Pollution degree

## Lifespan, electrical

20000 operations

## Direction of incoming supply

As required

## Technical data - mechanical

## Frame

45 mm

## Enclosure width

105 mm

## Width in number of modular spacings

3

## Built-in depth

70.5 mm

## Mounting width per pole

17.7 mm

## Mounting width

17.7 mm

## Mounting Method

Top-hat rail IEC/EN 60715

## Mounting position

As required

## Degree of protection

UL/CSA Type: -

IP40 (when fitted)

IP20

IP20 (IEC)

## Terminals (top and bottom)

Twin-purpose terminals

## Connectable conductor cross section (solid-core) - min

1 mm<sup>2</sup>

## Connectable conductor cross section (solid-core) - max

25 mm<sup>2</sup>

## Connectable conductor cross section (multi-wired) - min

1 mm<sup>2</sup>

## Connectable conductor cross section (multi-wired) - max

25 mm<sup>2</sup>

## Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

## Tightening torque

UL: 4 Nm (36 lb-in) for AWG 6

Max. 2.4 Nm

UL: 2.4 Nm (21 lb-in) for AWG 18 - AWG 12  
UL: 2.8 Nm (25 lb-in) for AWG 10 - AWG 8

## Design verification as per IEC/EN - technical data

Rated operational current for specified heat dissipation (I<sub>n</sub>)

20 A

Heat dissipation per pole, current-dependent

0 W

Equipment heat dissipation, current-dependent

5.5 W

Static heat dissipation, non-current-dependent

0 W

Heat dissipation capacity

0 W

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

75 °C

## Design verification as per IEC/EN 61439

### 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.

## Additional information

Current limiting class

3

Features

Additional equipment possible

Functions

Current limiting circuit breaker

Special features

Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity

Used with

FAZ-RT

Miniature circuit breaker

## Resources

Brochures

[eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf](#)

[Industrial miniature circuit breakers UL 489](#)

Catalogs

### 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.

### 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.

[eaton-xeffect-faz-na-rt-mcb-catalog-ca003032en-en-us.pdf](#)

### Characteristic curve

[eaton-xeffect-faz-na,-mcb-dimensions-003.jpg](#)

[eaton-xeffect-faz-na,-mcb-3d-drawing-010.jpg](#)

[eaton-mcb-xeffect-faz-na,-characteristic-curve-003.eps](#)

[eaton-xeffect-faz-na,-mcb-3d-drawing-009.jpg](#)

[eaton-xeffect-faz-na,-mcb-characteristic-curve-002.jpg](#)

[eaton-mcb-xeffect-faz-na,-characteristic-curve-004.eps](#)

[eaton-xeffect-faz-na,-mcb-characteristic-curve.jpg](#)

### Declarations of conformity

[DA-DC-03\\_FAZ-RT](#)

[DA-DC-03\\_FAZ-B-C-D](#)

[DA-DC-03\\_FAZ-DU](#)

### Drawings

[eaton-xeffect-faz-na,-mcb-dimensions.jpg](#)

[eaton-mcb-xeffect-faz-na,-3d-drawing-002.eps](#)

### eCAD model

[ETN.FAZ-D20\\_3-RT](#)

### Installation instructions

[IL019133ZU](#)

### mCAD model

[DA-CD-faz\\_na\\_3p](#)

[DA-CS-faz\\_na\\_3p](#)

### Specifications and datasheets

[Product Data Sheet - FAZ-D20/3-RT](#)

### Wiring diagrams

[eaton-xpole-mmc4-6-m-mcb-wiring-diagram-005.jpg](#)

[eaton-mcb-xeffect-faz-na,-wiring-diagram-002.eps](#)



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