Specifications

# Eaton 102278

## Catalog Number: 102278

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. FAZ-RT, 3-pole, tripping characteristic: C, rated current In: 1 A



## General specifications

**Product Name**
Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB

**Catalog Number**
102278

**EAN**
4015081021543

**Product Length/Depth**
105 mm

**Product Height**
75.5 mm

**Product Width**
53.1 mm

**Product Weight**
0.373 kg

**Compliances**
RoHS conform

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

Powering Business Worldwide

## 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

C

### Release characteristic

C

### Amperage Rating

1 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)

440 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

### Breaking capacity

10 kA (UL489)

### 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

2

### 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

IP20
IP40 (when fitted)
IP20 (IEC)
UL/CSA Type: -

### Terminals (top and bottom)

Twin-purpose terminals

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

1 mm²

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

25 mm²

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

1 mm²

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

25 mm²

### Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

### Tightening torque

Max. 2.4 Nm
UL: 2.8 Nm (25 lb-in) for AWG 10 - AWG 8

UL: 2.4 Nm (21 lb-in) for AWG 18 - AWG 12

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

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

Rated operational current for specified heat dissipation (In)

1 A

Heat dissipation per pole, current-dependent

0 W

Equipment heat dissipation, current-dependent

3.4 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

Catalogs

eaton-xeffect-faz-na-rt-mcb-catalog-ca003032en-en-us.pdf

### 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.

## Characteristic curve

eaton-xeffect-faz-na,-mcb-characteristic-curve-002.jpg

eaton-mcb-xeffect-faz-na,-characteristic-curve.eps

eaton-xeffect-faz-na,-mcb-3d-drawing-006.jpg

eaton-mcb-xeffect-faz-na,-characteristic-curve-002.eps

eaton-xeffect-faz-na,-mcb-dimensions-003.jpg

eaton-xeffect-faz-na,-mcb-3d-drawing-002.jpg

eaton-xeffect-faz-na,-mcb-characteristic-curve.jpg

## Declarations of conformity

DA-DC-03_FAZ-B-C-D

DA-DC-03_FAZ-RT

## Drawings

eaton-xeffect-faz-na,-mcb-dimensions.jpg

eaton-mcb-xeffect-faz-na,-3d-drawing-002.eps

## eCAD model

DA-CE-ETN.FAZ-C1_3-RT

## Installation instructions

IL019133ZU

## mCAD model

DA-CD-faz_na_3p

DA-CS-faz_na_3p

## Wiring diagrams

eaton-mcb-xeffect-faz-na,-wiring-diagram-002.eps

eaton-xpole-mmc4-6-m-mcb-wiring-diagram-005.jpg




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