

# Eaton 190914

Catalog Number: 190914

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. Miniature circuit breaker (MCB), 35 A, 4p, characteristic: B, NA



### General specifications

#### Product Name

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

#### Catalog Number

190914

#### EAN

4015081905614

#### Product Length/Depth

105 mm

#### Product Height

75.5 mm

#### Product Width

70.8 mm

#### Product Weight

0.508 kg

#### Compliances

RoHS conform

#### Certifications

UL 489, CSA C22.2 No. 5

IEC 60947-2

CSA-C22.2 No. 5-09

IEC/EN 60947-2

CSA (File No. 204453)

CE marking

North America (UL listed, CSA certified)

UL (Category Control Number DIVQ)

UL (File No. E235139)

Specially designed for North America,  
suitable as BCPD

UL 489

CSA (Class No. 1432-01)

EN45545-2

IEC 61373

## Delivery program

### Application

Feeder circuits, branch circuits  
Switchgear for export to North America (UL-listed)  
xEffect - Switchgear for industrial and advanced commercial applications

### Number of poles

Four-pole

### Number of poles (total)

4

### Number of poles (protected)

4

### Tripping characteristic

B

### Release characteristic

B

### Amperage Rating

35 A

### Type

FAZ-NA  
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)

240 V

### Rated operational voltage (Ue) - max

240 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

### Operational switching capacity

7.5 kA

### Breaking capacity

10 kA (UL489)

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

10 kA

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

15 kA

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

10 kA

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

14 kA

### Admissible back-up fuse - max

125 A gL/gG

Selectivity class

3

Overvoltage category

III

Pollution degree

2

Lifespan, electrical

min. 1500 operations

min. 6000 operations (UL)

Direction of incoming supply

As required

## Technical data - mechanical

Frame

45 mm

Enclosure width

105 mm

Width in number of modular spacings

4

Built-in depth

60 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: -

IP20

IP20 (IEC)

IP40 (when fitted)

Terminals (top and bottom)

Lift terminal / ring-tongue

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 capacity of screw terminals for main cable

10 mm<sup>2</sup> (2x)

Terminal capacity (control cable)

25 mm<sup>2</sup> (1x)

Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

#### Contact position indicator color

Red / green

#### Tightening torque

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

Max. 2.4 Nm

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

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

#### Lifespan, mechanical

10000 operations

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

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

35 A

#### Heat dissipation per pole, current-dependent

0 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

#### Ambient operating temperature (UL) - min

-5 °C

#### Ambient operating temperature (UL) - max

40 °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.

### Additional information

#### Accessories required

Z-IHK-NA 113895

#### Current limiting class

3

#### Features

Additional equipment possible

#### Fitted with:

Z-IS/SPE-1TE 274418

#### Functions

Current limiting circuit breaker

#### Internal resistance at room temperature (single-pole, 50 Hz)

2.9 m Ω

#### Special features

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

#### 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.

#### 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.

Tripping signal contact for subsequent installation Z-NHK 248434

#### Suitable for

Flush-mounted installation

#### Used with

FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release) FAZ-NA Miniature circuit breaker FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release)

### Resources

#### Brochures

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

#### Catalogs

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

#### Characteristic curve

[eaton-xeffect-faz-na,-mcb-dimensions-004.jpg](#)

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

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

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

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

#### Declarations of conformity

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

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

#### Drawings

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

#### eCAD model

[ETN.FAZ-B35\\_4-NA.edz](#)

#### Installation instructions

[IL019133ZU](#)

#### mCAD model

[DA-CS-faz\\_na\\_4p](#)

[DA-CD-faz\\_na\\_4p](#)

#### Wiring diagrams

[eaton-xpole-mm4-6-m-mcb-wiring-diagram-006.jpg](#)



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