Specifications

# Eaton 176069

## Catalog Number: 176069

Eaton Moeller series xEffect - FAZ-DC MCB. Miniature circuit breaker (MCB), 16 A, 1p, characteristic: B, DC




### General specifications

**Product Name**
Eaton Moeller series xEffect - FAZ-DC MCB

**Catalog Number**
176069

**EAN**
4015081712656

**Product Length/Depth**
80 mm

**Product Height**
75.5 mm

**Product Width**
17.7 mm

**Product Weight**
0.11 kg

**Compliances**
RoHS conform

**Certifications**
EN45545-2
IEC 61373

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## Delivery program

Application

Switchgear for DC applications

Number of poles

Single-pole

Number of poles (total)

1

Number of poles (protected)

1

Tripping characteristic

B

Release characteristic

B

Amperage Rating

16 A

Type

FAZ-DC

Miniature circuit breaker

## Technical data - electrical

Voltage type

DC

Rated operational voltage (Ue) - max

250 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)

10 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

10 kA

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

10 kA

Overvoltage category

III

Pollution degree

2

## Technical data - mechanical

Width in number of modular spacings

1

Built-in depth

70.5 mm

Degree of protection

IP20

## Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)

16 A

Heat dissipation per pole, current-dependent

0 W

Equipment heat dissipation, current-dependent

2.2 W

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

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.

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.

## Additional information

Current limiting class

3

Features

Additional equipment possible

Special features

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

Used with

Miniature circuit breaker

FAZ-DC

## Resources

Brochures

eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf

Catalogs

eaton-xeffect-faz-dc-mcb-catalog-ca003030en-en-us.pdf

Characteristic curve

eaton-xeffect-faz-dc-mcb-characteristic-curve-002.jpg

eaton-xeffect-faz-dc-mcb-characteristic-curve.jpg

Declarations of conformity

DA-DC-03_FAZ-DC

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

Drawings

eaton-xeffect-faz-dc-mcb-dimensions.jpg

eCAD model

ETN.FAZ-B16_1-DC.edz

### 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.

### Installation instructions

IL019140ZU

### mCAD model

eaton-faz_mcb_1p_dc-drawing.dwg

eaton-faz_mcb_1p_dc-3d-model.stp

### Wiring diagrams

eaton-xeffect-faz-dc-mcb-wiring-diagram.jpg



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