Specifications

# Eaton 211770

## Catalog Number: 211770

Eaton Moeller series xEffect - AZ MCB. Miniature circuit breaker (MCB), 20A, 2p, C-Char




### General specifications

**Product Name**
Eaton Moeller series xEffect - AZ MCB

**Catalog Number**
211770

**EAN**
4015082117702

**Product Length/Depth**
90 mm

**Product Height**
75 mm

**Product Width**
54 mm

**Product Weight**
0.454 kg

**Compliances**
RoHS conform

**Certifications**
IEC/EN 60947-2
EN45545-2
IEC 61373

Powering Business Worldwide

## Product specifications

### Used with

AZ

Miniature circuit breaker

### Type

AZ

Miniature circuit breaker

### Special features

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

### Application

Switchgear for industrial and advanced commercial applications

xEffect - Switchgear for industrial and advanced commercial applications

### Amperage Rating

20 A

### Voltage rating

230 V AC / 400 V AC

### Features

Additional equipment possible

### 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.

### 10.2.2 Corrosion resistance

Meets the product standard's requirements.

## Resources

### Application notes

eaton-quality-standards-for-railway-applications-application-paper-ap003005en-en-us.pdf

eaton-maximum-cable-lengths-for-eatons-protective-devices-brochure-br034006en-en-us.pdf

### Brochures

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

### Characteristic curve

eaton-mcb-current-xeffect-az-characteristic-curve.eps

eaton-mcb-tripping-characteristic-xeffect-az-characteristic-curve.eps

eaton-mcb-xeffect-az-characteristic-curve-002.eps

eaton-xeffect-az-mcb-characteristic-curve-002.jpg

eaton-mcb-current-xeffect-az-characteristic-curve-002.eps

eaton-xeffect-az-mcb-characteristic-curve-004.jpg

eaton-mcb-xeffect-az-characteristic-curve.eps

### Declarations of conformity

DA-DC-03_AZ

### Drawings

eaton-mcb-xeffect-az-dimensions-003.eps

eaton-xpole-mmct-mcb-dimensions.jpg

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

eaton-xeffect-az-mcb-3d-drawing.jpg

eaton-xeffect-az-mcb-3d-drawing-002.jpg

### eCAD model

DA-CE-ETN.AZ-2-C20

### Installation instructions

IL019148ZU

### mCAD model

DA-CD-az_1pn_2p

DA-CS-az_1pn_2p

### Wiring diagrams

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

eaton-xpole-mmc4-6-m-mcb-wiring-diagram-003.jpg

### 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.

Frame

45 mm

Pollution degree

2

Mounting Method

Top-hat rail IEC/EN 60715

Degree of protection

IP20

IP40 (when fitted)

Equipment heat dissipation, current-dependent

5.42 W

Rated impulse withstand voltage (Uimp)

4 kV

Admissible back-up fuse - max

200 A gL/gG

Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

Terminals (top and bottom)

Lift terminals

Tripping characteristic

C

Ambient operating temperature - max

55 °C

Ambient operating temperature - min

-25 °C

Built-in depth

75 mm

Connectable conductor cross section (multi-wired) - max

50 mm²

Connectable conductor cross section (multi-wired) - min

2.5 mm²

Connectable conductor cross section (solid-core) - max

50 mm²

Connectable conductor cross section (solid-core) - min

2.5 mm²

Current limiting class

3

Enclosure width

90 mm

Frequency rating - max

60 Hz

Frequency rating - min

50 Hz

Heat dissipation capacity

0 W

Heat dissipation per pole, current-dependent

0 W

Direction of incoming supply

As required

Width in number of modular spacings

3

Voltage rating at DC

60 V DC (per pole)

Voltage type

AC

Overvoltage category

III

Number of poles

Two-pole

Lifespan, electrical

10000 operations

Release characteristic

C

Mounting width

27 mm

Selectivity class

3

Mounting width per pole

27 mm

Number of poles (protected)

2

Number of poles (total)

2

Operational switching capacity

20 kA

Rated insulation voltage (Ui)

440 V

Rated operational current for specified heat dissipation (In)

20 A

Rated operational voltage (Ue) - max

400 V

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

25 kA

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

25 kA

Rated switching capacity (IEC/EN 60947-2)

25 kA

Static heat dissipation, non-current-dependent

0 W

Terminal capacity (control cable)

2.5 mm² - 50 mm²

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