Specifications

Eaton 211790



Catalog Number: 211790

Eaton Moeller series xEffect - AZ MCB. Miniature circuit breaker (MCB), 50A, 2p, C-Char

General specifications

Product Name
Eaton Moeller series xEffect - AZ MCB

Catalog Number
211790

EAN
4015082117900

Product Length/Depth
90 mm

Product Height
75 mm

Product Width
54 mm

Product Weight
0.451 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

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

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

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

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

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

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

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

Declarations of conformity

DA-DC-03_AZ

Drawings

eaton-xpole-mmct-mcb-dimensions.jpg

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

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

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

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

eCAD model

DA-CE-ETN.AZ-2-C50

Installation instructions

IL019148ZU

mCAD model

DA-CD-az_1pn_2p

DA-CS-az_1pn_2p

Wiring diagrams

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

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

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

IP40 (when fitted)

IP20

Equipment heat dissipation, current-dependent

10.3 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)

50 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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