Specifications

Eaton 187453



Catalog Number: 187453

Eaton Moeller series xPole - PFIM Type F RCCB. Residual current circuit breaker (RCCB), 40A, 2p, 300mA, type G/F

General specifications

Product Name
Eaton Moeller series xPole - PFIM Type F RCCB

Catalog Number
187453

EAN
4015081825110

Product Length/Depth
80 mm

Product Height
76 mm

Product Width
35 mm

Product Weight
0.187 kg

Compliances
RoHS conform

Certifications
IEC/EN 62423
IEC/EN 61008
ÖVE E 8601

Powering Business Worldwide

Delivery program

Application

Residual current circuit breaker for residential and commercial applications
xPole - Switchgear for residential and commercial applications

Number of poles

Two-pole

Tripping time

Short time-delayed

Amperage Rating

40 A

Rated short-circuit strength

10 kA with back-up fuse

Fault current rating

300 mA

Sensitivity type

Pulse-current sensitive - frequency composition (10 Hz, 50 Hz, 1000 Hz)

Impulse withstand current

Surge-proof 5 kA

Type

PFIM-F
Residual current circuit breakers
Type G/F (ÖVE E 8601)

Technical data - electrical

Voltage rating

230 V AC

Voltage rating (IEC/EN 60947-2)

230 V

Rated operational voltage (Ue) - max

230 V

Rated insulation voltage (Ui)

440 V

Rated impulse withstand voltage (Uimp)

4 kV

Rated fault current - min

0.3 A

Rated fault current - max

0.3 A

Frequency rating

50 Hz

Short-circuit rating

63 A (max. admissible back-up fuse)

Leakage current type

Other

Rated residual making and breaking capacity

500 A

Admissible back-up fuse overload - max

25 A gG/gL

Rated short-time withstand current (Icw)

10 kA

Surge current capacity

3 kA

Test circuit range

196 V AC - 264 V AC

Pollution degree

2

Lifespan, electrical

4000 operations

Technical data - mechanical

Frame

45 mm

Width in number of modular spacings

2

Built-in width (number of units)

35 mm (2 SU)

Built-in depth

70.5 mm

Mounting Method

DIN rail

Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715

Mounting position

As required

Degree of protection

IP20

IP20, IP40 with suitable enclosure

Terminals (top and bottom)

Open mouthed/lift terminals

Terminal capacity (solid wire)

1.5 mm² - 35 mm²

Connectable conductor cross section (solid-core) - min

1.5 mm²

Connectable conductor cross section (solid-core) - max

35 mm²

Terminal capacity (stranded cable)

16 mm² (2x)

Connectable conductor cross section (multi-wired) - min

1.5 mm²

Connectable conductor cross section (multi-wired) - max

16 mm²

Terminal capacity (cable)

M5 (with cross-recessed screw as defined in EN ISO 4757-Z2, PZ2)

Terminal protection

Finger and hand touch safe, DGUV VS3, EN 50274

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)

40 A

Equipment heat dissipation, current-dependent

7.8 W

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

60 °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.

Tightening torque

2 Nm - 2.4 Nm

Contact position indicator color

Red / green

Busbar material thickness

0.8 mm - 2 mm

Lifespan, mechanical

20000 operations

Permitted storage and transport temperature - min

-35 °C

Permitted storage and transport temperature - max

60 °C

Climatic proofing

25-55 °C / 90-95% relative humidity according to IEC 60068-2

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.

Additional information

Accessories required

Z-HK 248432

Features

Additional equipment possible

Residual current circuit breaker

Fitted with:

Interlocking device

Resources

Application notes

eaton-rcd-application-guide-br019003en-en-us.pdf

Brochures

eaton-xpole-residual-current-devices-type-f-brochure-br019005en-en-us.pdf

Catalogs

eaton-xpole-pfim-f-rccb-catalog-ca019030en-en-us.pdf

Functions

Short-time delayed tripping

Special features

Current test marks as per inscription
Maximum operating temperature is 60 °C:
Starting at 40 °C, the max. permissible continuous current decreases by 2.5% for every 1 °C
Tripping signal contact for subsequent installation Z-NHK 248434

Used with

PFIM-F
Residual current circuit breakers
KLV-TC-2 276240 (Compact enclosure)
Z-FW/LP 248296 (Remote control and automatic switching device)
Z-RC/AK-2MU 285385 (sealing cover set)
Type G/F (ÖVE E 8601)

Declarations of conformity

DA-DC-03_PFI

Drawings

eaton-circuit-breaker-xeffect-frcmm-rccb-dimensions.jpg

eaton-xpole-pf67-rccb-3d-drawing.jpg

eCAD model

DA-CE-ETN.PFIM-40_2_03-G_F

Wiring diagrams

eaton-xeffect-frcmm-rccb-wiring-diagram.jpg

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