

# Eaton 170959

Catalog Number: 170959

Eaton Moeller series xEffect - FRBm4 RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 25A, 300mA, MCB trip type C, 3-phase+N, RCCB trip type: A



Photo is representative

## General specifications

<b>Product Name</b>	<b>Catalog Number</b>
Eaton Moeller series xEffect - FRBm4 RCBO - residual-current circuit breaker with overcurrent protection	170959
<b>EAN</b>	<b>Model Code</b>
4015081670864	FRBM4-C25/3N/03-A
<b>Product Height</b>	<b>Product Length/Depth</b>
75.5 mm	80 mm
<b>Product Weight</b>	<b>Product Width</b>
0.461 kg	70 mm
<b>Certifications</b>	<b>Compliances</b>
CE EN45545-2 IEC 61373	RoHS conform

## Product specifications

### Type

RCBO

### Application

Switchgear for industrial and advanced commercial applications

### Amperage Rating

25 A

### Voltage rating

415 V - 415 V

### Surge current capacity

0.25 kA

### Voltage type

AC

### Width in number of modular spacings

4

### Features

Concurrently switching N-neutral

### Operating ambient temperature - max

40 °C

### Operating ambient temperature - min

-25 °C

### Product range

FRBm4

### Rated current

25 A

### Rated fault currents of product range

30, 100, 300 MilliAmpere

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

25 A

### Rated switching capacity (IEC/EN 61009)

4.5 kA

### Static heat dissipation, non-current-dependent

0 W

### Tripping characteristic

C

### Built-in depth

## Resources

### Brochures

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

### Catalogs

[eaton-xeffect-frbm4-rcbo-catalog-ca003016en-en-us.pdf](#)

### Characteristic curve

[Ausloese\\_mRB](#)

### Declarations of conformity

[DA-DC-03\\_FRBM-3](#)

[03\\_FRBM-3\\_191119](#)

[DA-DC-03\\_FRBm-3N](#)

### Drawings

[Dimension xEffect FRBm4/FRBm6 3N](#)

[eaton-xeffect-frbm6m-wiring-diagram-002.jpg](#)

[eaton-xeffect-frbm6m-dimensions-004.jpg](#)

[eaton-xeffect-frbm6m-characteristic-curve-002.jpg](#)

[Mas\\_PKPx4](#)

### eCAD model

[ETN.FRBM4-C25\\_3N\\_03-A.edz](#)

### Installation instructions

[IL019140ZU](#)

### mCAD model

[eaton-frbm\\_3n\\_rcbo-drawing.dwg](#)

[eaton-cadenas-side\\_view-frbm\\_3n\\_rcbo\\_side.pra](#)

[eaton-cadenas-front\\_view-frbm\\_3n\\_rcbo\\_front.pra](#)

[eaton-cadenas-path-rail\\_digital\\_2-frbm\\_3n\\_rcbo.3db](#)

[eaton-frbm\\_3n\\_rcbo-3d-model.stp](#)

### Specifications and datasheets

[Eaton Specification Sheet - 170959](#)

### Wiring diagrams

[Contact Sequence xEffect FRBm4/FRBm6 3N](#)

[mRB](#)

75.5 mm

Current limiting class

3

Rated short-circuit breaking capacity (EN 60947-2)

0 kA

Ambient operating temperature - max

40 °C

Ambient operating temperature - min

-25 °C

Fault current rating

0.3 A

Heat dissipation capacity

0 W

Heat dissipation per pole, current-dependent

0 W

Number of poles (protected)

4

Number of poles (total)

4

Rated operational voltage (Ue) - max

415 V

Rated short-circuit breaking capacity (IEC 60947-2)

0 kA

Rated switching capacity

4.5 kA

Basic function

Combined RCD/MCB devices

Equipment heat dissipation, current-dependent

11.6 W

Rated impulse withstand voltage (Uimp)

4 kV

Degree of protection

IP20

Operating ambient temperature hint

Keep in mind the derating at temperatures higher than 40 °C

Tripping

Non-delayed

Overvoltage category

III

Pollution degree

2

Impulse withstand current

Partly surge-proof, 250 A

Leakage current type

A

Release characteristic

C

Sensitivity type

Pulse-current sensitive

Frequency rating

50 Hz

Rated insulation voltage (Ui)

500 V

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>

Rated short-circuit breaking capacity (EN 61009)

4.5 kA

Rated short-circuit breaking capacity (EN 61009-1)

4.5 kA

Number of poles

Three-pole + N

Disconnection characteristic

Undelayed



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