Specifications

# Eaton 103003



## Catalog Number: 103003

Eaton Moeller® series MSC-R Reversing starter, 380 V 400 V 415 V: 1.1, 1.5 kW, Ir= 2.5 - 4 A, 24 V DC, DC voltage MSC-R-4-M7(24VDC)/BBA

## General specifications

**Product Name**
Eaton Moeller® series MSC-R Reversing starter

**Catalog Number**
103003

**EAN**
4015081028429

**Product Length/Depth**
200 mm

**Product Height**
153 mm

**Product Width**
90 mm

**Product Weight**
1.67 kg

**Certifications**

CE
UL
UL Category Control No.: NKJH
UL File No.: E123500
CSA-C22.2 No. 14-10
CSA File No.: 012528
IEC/EN 60947-4-1
UL60947-4-1A
CSA Class No.: 3211-04
CSA
CSA-C22.2 No. 14 (on request)
UL 508 (on request)

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## Features & Functions

Fitted with:

Short-circuit release

Functions

Temperature compensated overload protection

## General

Class

CLASS 10 A

Connection

Screw terminals

Connection to SmartWire-DT

No

Coordination type

2

Degree of protection

IP20

NEMA Other

Model

IEC/UL starter

Mounting method

Mounting on Busbar 60 mm

Number of auxiliary contacts (normally closed contacts)

0

Number of auxiliary contacts (normally open contacts)

0

Overload release current setting - min

2.5 A

Overload release current setting - max

4 A

Overvoltage category

III

Pollution degree

3

Rated impulse withstand voltage (Uimp)

6000 V AC

Suitable for

Also motors with efficiency class IE3

Type

Starter with Bi-Metal release

Voltage type

DC

## Climatic environmental conditions

Altitude

Max. 2000 m

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

55 °C

## Electrical rating

Rated operational current (Ie)

3.6 A

Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V

4 A

Rated operational power at AC-3, 220/230 V, 50 Hz

0.75 kW

Rated operational power at AC-3, 380/400 V, 50 Hz

1.5 kW

Rated operational voltage

230 - 415 V AC

Switching capacity (auxiliary contacts, general use)

1 A, 250 V DC, (UL/CSA)

15 A, 600 V AC, (UL/CSA)

Switching capacity (auxiliary contacts, pilot duty)

P300, DC operated (UL/CSA)

A600, AC operated (UL/CSA)

## Short-circuit rating

Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V

50000 A

Short-circuit release (Irm) - max

62 A

## Magnet system

Power consumption (sealing) at DC

3 W

Rated control supply voltage (Us) at AC, 50 Hz - min

0 V

Rated control supply voltage (Us) at AC, 50 Hz - max

0 V

Rated control supply voltage (Us) at AC, 60 Hz - min

0 V

Rated control supply voltage (Us) at AC, 60 Hz - max

0 V

Rated control supply voltage (Us) at DC - min

24 V

Rated control supply voltage (Us) at DC - max

24 V

## Design verification

## Resources

### Equipment heat dissipation, current-dependent Pvid

6 W

### Heat dissipation capacity Pdiss

0 W

### Heat dissipation per pole, current-dependent Pvid

2 W

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

4 A

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

2.6 W

### 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.

### 10.6 Incorporation of switching devices and components

### Brochures

eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf

eaton-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf

### Catalogs

Product Range Catalog Switching and protecting motors

eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf

### Declarations of conformity

DA-DC-00004878.pdf

DA-DC-00004976.pdf

DA-DC-00004972.pdf

DA-DC-00004910.pdf

### Drawings

eaton-manual-motor-starters-busbar-msc-r-reversing-starter-dimensions-002.eps

eaton-general-ie-ready-dilm-contactor-standards.eps

### eCAD model

ETN.103003.edz

### Installation instructions

IL03402006Z

IL03402015Z

### Installation videos

WIN-WIN with push-in technology

### mCAD model

DA-CD-msc_r_bba_bg1

DA-CS-msc_r_bba_bg1

### Sales notes

eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf

### Wiring diagrams

eaton-manual-motor-starters-starter-msc-r-reversing-starter-wiring-diagram.eps

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.



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