# Eaton 102996

## Catalog Number: 102996

Eaton Moeller® series MSC-R Reversing starter, 380 V 400 V 415 V: 15 kW, Ir= 25 - 32 A, 230 V 50 Hz, 240 V 60 Hz, AC voltage MSC-R-32-M32(230V50HZ)/BBA

## General specifications

#### **Product Name**

## Catalog Number

Eaton Moeller® series MSC-R Reversing 102996

starter

EAN

4015081028351

## Product Length/Depth

## Product Height

200 mm

157 mm

## **Product Width**

#### Product Weight

90 mm

1.73 kg

#### Certifications

CSA File No.: 012528

CSA-C22.2 No. 14 (on request)

IEC/EN 60947-4-1

 $\mathsf{UL}$ 

CSA

UL60947-4-1A

CE

CSA-C22.2 No. 14-10 CSA Class No.: 3211-04

UL Category Control No.: NKJH

UL 508 (on request)
UL File No.: E123500





## 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

IP00

**NEMA Other** 

Model

IEC 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

25 A

Overload release current setting - max

32 A

Overvoltage category

Ш

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

AC

#### Climatic environmental conditions

Altitude

Max. 2000 m

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

55 °C

## Electrical rating

Rated operational current (le)

29.3 A

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

32 A

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

7.5 kW

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

15 kW

Rated operational voltage

230 - 415 V AC

Switching capacity (auxiliary contacts, general use)

15 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)

Switching capacity (auxiliary contacts, pilot duty)

A600, AC operated (UL/CSA) P300, DC 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

496 A

## Magnet system

Power consumption, sealing, 50 Hz

2.1 W, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz

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

230 V

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

230 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

0 V

Rated control supply voltage (Us) at DC - max

0 V

#### Design verification

#### Resources

Equipment heat dissipation, current-dependent Pvid

22.5 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

7.5 W

Rated operational current for specified heat dissipation (In)

32 A

Static heat dissipation, non-current-dependent Pvs

2.1 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-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf

Catalogs

Product Range Catalog Switching and protecting motors

eat on-product-overview-for-machinery-catalogue-ca 08103003 zen-enus. pdf

Declarations of conformity

DA-DC-00004988.pdf

DA-DC-00004983.pdf

**Drawings** 

eaton-manual-motor-starters-busbar-msc-r-reversing-starter-

dimensions.eps

eaton-manual-motor-starters-busbar-msc-r-reversing-starter-3d-

drawing.eps

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

eCAD model

ETN.102996.edz

Installation instructions

IL03402015Z

IL03402011Z

Installation videos

WIN-WIN with push-in technology

mCAD model

 $DA\text{-}CD\text{-}msc\_r\_bba\_bg2$ 

DA-CS-msc\_r\_bba\_bg2

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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