

# Eaton 102971

Catalog Number: 102971

Eaton Moeller® series MSC-D DOL starter, 380 V 400 V 415 V: 2.2 kW, I<sub>r</sub>= 4 - 6.3 A, 24 V DC, DC voltage MSC-D-6,3-M7(24VDC)/BBA



### General specifications

Product Name	Catalog Number
Eaton Moeller® series MSC-D DOL starter	102971
	EAN
	4015081028108
Product Length/Depth	Product Height
154 mm	200 mm
Product Width	Product Weight
45 mm	0.93 kg

### Certifications

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

## Features & Functions

### Fitted with:

Short-circuit release

### Functions

Temperature compensated overload protection

## General

### Class

CLASS 10

### 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)

1

### Overload release current setting - min

4 A

### Overload release current setting - max

6.3 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 (I<sub>e</sub>)

5 A

### Rated operational current (I<sub>e</sub>) at AC-3, 380 V, 400 V, 415 V

6.3 A

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

1.5 kW

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

2.2 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 (I<sub>q</sub>), type 2, 380 V, 400 V, 415 V

50000 A

### Short-circuit current rating (high fault at 600 V)

100 kA, Fuse, SCCR (UL/CSA)

1 A, Class J/CC, max. Fuse, SCCR (UL/CSA)

### Short-circuit release (I<sub>rm</sub>) - max

97.7 A

## Magnet system

### Power consumption (sealing) at DC

3 W

### Rated control supply voltage (U<sub>s</sub>) at AC, 50 Hz - min

0 V

### Rated control supply voltage (U<sub>s</sub>) at AC, 50 Hz - max

0 V

### Rated control supply voltage (U<sub>s</sub>) at AC, 60 Hz - min

0 V

### Rated control supply voltage (U<sub>s</sub>) at AC, 60 Hz - max

0 V

### Rated control supply voltage (U<sub>s</sub>) at DC - min

24 V

### Rated control supply voltage (U<sub>s</sub>) at DC - max

24 V

## Design verification

## Resources

Equipment heat dissipation, current-dependent P<sub>vid</sub>

6.9 W

Heat dissipation capacity P<sub>diss</sub>

0 W

Heat dissipation per pole, current-dependent P<sub>vid</sub>

2.3 W

Rated operational current for specified heat dissipation (I<sub>n</sub>)

6.3 A

Static heat dissipation, non-current-dependent P<sub>vs</sub>

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-00004976.pdf](#)

[DA-DC-00004878.pdf](#)

[DA-DC-00004910.pdf](#)

[DA-DC-00004972.pdf](#)

Drawings

[eaton-manual-motor-starters-adapter-msc-d-dol-starter-dimensions.eps](#)

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

eCAD model

[ETN.102971.edz](#)

Installation instructions

[IL034014ZU](#)

[IL03402015Z](#)

[IL034038ZU](#)

Installation videos

[WIN-WIN with push-in technology](#)

mCAD model

[DA-CD-msc\\_d\\_bba\\_bg1](#)

[DA-CS-msc\\_d\\_bba\\_bg1](#)

Sales notes

[eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf](#)

Wiring diagrams

[eaton-manual-motor-starters-device-msc-d-dol-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.