

Eaton 102977

Catalog Number: 102977

Eaton Moeller® series MSC-D DOL starter, 380 V 400 V 415 V: 5.5 kW, Ir= 8 - 12 A, 24 V DC, DC voltage MSC-D-12-M17(24VDC)/BBA



General specifications

Product Name	Catalog Number
Eaton Moeller® series MSC-D DOL starter	102977
	EAN
	4015081028160
Product Length/Depth	Product Height
156 mm	200 mm
Product Width	Product Weight
45 mm	1.14 kg

Certifications

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

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/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

8 A

Overload release current setting - max

12 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)

11.3 A

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

12 A

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

3 kW

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

5.5 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)

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

186 A

Magnet system

Power consumption (sealing) at DC

0.5 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 P_{vid}

8.7 W

Heat dissipation capacity P_{diss}

0 W

Heat dissipation per pole, current-dependent P_{vid}

2.9 W

Rated operational current for specified heat dissipation (I_n)

12 A

Static heat dissipation, non-current-dependent P_{vs}

0.9 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

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

[Product Range Catalog Switching and protecting motors](#)

Declarations of conformity

[DA-DC-00004988.pdf](#)

[DA-DC-00004983.pdf](#)

Drawings

[eaton-manual-motor-starters-adapter-msc-d-dol-starter-dimensions-002.eps](#)

[eaton-manual-motor-starters-adapter-msc-d-dol-starter-3d-drawing.eps](#)

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

eCAD model

[ETN.102977.edz](#)

Installation instructions

[IL03402010Z](#)

[IL03402015Z](#)

Installation videos

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

mCAD model

[DA-CD-msc_d_bba_bg2](#)

[DA-CS-msc_d_bba_bg2](#)

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.