



**MSC MOTOR STARTERS COMBINATIONS**  
**102977**



Overview



Specifications



Resources

How to

102977

Eaton Moeller® series MSC-D DOL starter, 380 V 4 A, 24 VDC, DC voltage MSC-D-12-M17(24VDC)/B



How to buy



Configurator Motor starter combinations

Photo is representative

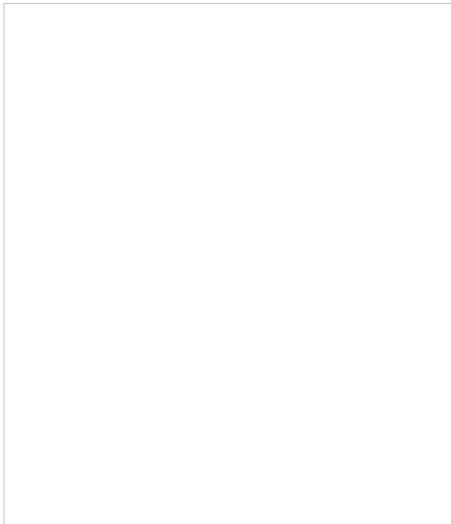


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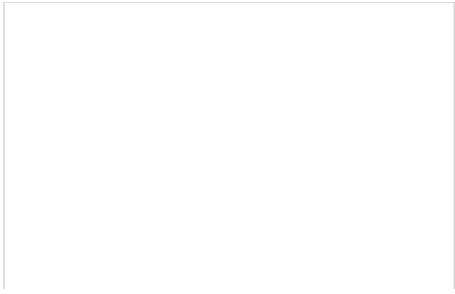


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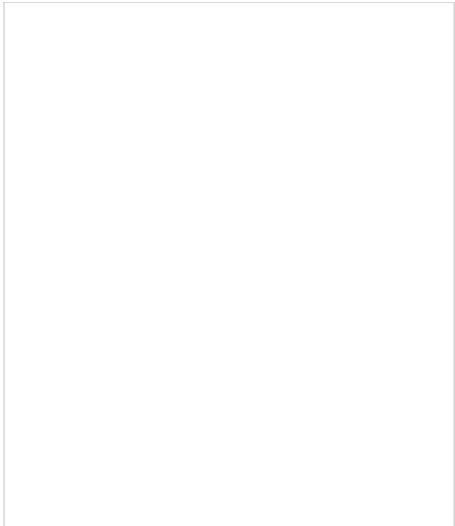


Photo is representative



## Designed to work together

Discover other Eaton products and accessories built to enhance this product.

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**118561**

Eaton Moeller® series DIL-SWD Function element, contactor, SmartWire-DT, DIL/MSC, manual/auto

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**118560**

Eaton Moeller® series DIL-SWD Function element, contactor, SmartWire-DT, DIL/MSC

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## GENERAL SPECIFICATIONS

General specifications



<b>PRODUCT NAME</b>	Eaton Moeller® series MSC-D DOL starter
<b>CATALOG NUMBER</b>	102977
<b>MODEL CODE</b>	MSC-D-12-M17(24VDC)/BBA
<b>EAN</b>	4015081028160
<b>PRODUCT LENGTH/DEPTH</b>	156 mm
<b>PRODUCT HEIGHT</b>	200 mm
<b>PRODUCT WIDTH</b>	45 mm
<b>PRODUCT WEIGHT</b>	1.14 kg
<b>CERTIFICATIONS</b>	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

## PRODUCT SPECIFICATIONS

<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	12 A
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### 10.11 SHORT-CIRCUIT RATING

Is the panel builder's responsibility. The specification must be observed.

<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	5.5 kW
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### RATED OPERATIONAL VOLTAGE

230 - 415 V AC

<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 480 Y/277 V</b>	0 A
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	0 V
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### 10.4 CLEARANCES AND CREEPAGE DISTANCES

Meets the product standard's requirements.

### 10.12 ELECTRO MAGNETIC COMPATIBILITY

Is the panel builder's responsibility. The specification

must be observed.

<b>MOUNTING MEIHOD</b>	Mounting on Busbar 60 mm
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be transported by the manufacturer.
<b>RATED POWER AT 575 V, 60 HZ, 3-PHASE</b>	0 kW
<b>RATED POWER AT 460 V, 60 HZ, 3-PHASE</b>	0 kW
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>RATED CONTROL SUPPLY VOLTAGE (US) ATDC - MIN</b>	24 V
<b>FITTED WITH:</b>	Short-circuit release
<b>NUMBER OF PILOT LIGHTS</b>	0
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	0 V
<b>COORDINATION TYPE</b>	2
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>COORDINATION CLASS (IEC 60947-4-3)</b>	Class 2
<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 600 Y/347 V</b>	0 A
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
<b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>	3 kW
<b>CONNECTION TO SMARTWIRE-DT</b>	No
<b>NUMBER OF COMMAND POSITIONS</b>	0
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	0.9 W
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT</b>	Screw connection
<b>POWER CONSUMPTION (SEALING) AT DC</b>	0.5 W
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	24 V
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be transported by the manufacturer.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be transported by the manufacturer.
<b>CLASS</b>	CLASS 10 A

**10.13 MECHANICAL FUNCTION**

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

**10.2.6 MECHANICAL IMPACT**

Does not apply, since the entire switchgear needs to

**10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL**

Is the panel builder's responsibility.

**10.3 DEGREE OF PROTECTION OF ASSEMBLIES**

Does not apply, since the entire switchgear needs to

**HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID**

2.9 W

**ACTUATING VOLTAGE**

24 V DC

**VOLTAGE TYPE**

DC

**SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)**

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

**OVERLOAD RELEASE CURRENT SETTING - MIN**

8 A

**EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID**

8.7 W

**HEAT DISSIPATION CAPACITY PDISS**

0 W

**RATED OPERATIONAL CURRENT (IE)**

11.3 A

**SUITABLE FOR**

Also motors with efficiency class IE3

**NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)**

0

**RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V**

50000 A

**POWER CONSUMPTION**

0.9 W

**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.

**OVERLOAD RELEASE CURRENT SETTING - MAX**

12 A

**10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH**

Is the panel builder's responsibility.

**OVERVOLTAGE CATEGORY**

III

**DEGREE OF PROTECTION**

IP00  
NEMA Other

**POLLUTION DEGREE**

3

**RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN**

0 V

**10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS**

Is the panel builder's responsibility.

**RATED IMPULSE WITHSTAND VOLTAGE (UIMP)**

6000 V AC

<b>CONNECTION</b>	Screw terminals
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the devi
<b>FUNCTIONS</b>	Temperature compensated overload protection
<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V</b>	50000 A
<b>TYPE</b>	Starter with Bi-Metal release
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>SHORT-CIRCUIT RELEASE (IRM) - MAX</b>	186 A
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	0 V
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	12 A
<b>MODEL</b>	Direct starter
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	1
<b>ALTITUDE</b>	Max. 2000 m
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)

Brochures

Catalogs

Declarations of conformity

Drawings

eCAD model

Installation instructions

## Installation videos

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### mCAD model

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### Wiring diagrams

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Eaton is an intelligent power management company dedicated to improving the quality of life and protecting the environment for people everywhere. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power—today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're accelerating the planet's transition to renewable energy and helping to solve the world's most urgent power management challenges.