

DOL starter, 380 V 400 V 415 V: 4 kW, Ir= 6.3 - 10 A, 230 V 50 Hz, 240 V 60 Hz,
AC voltage



Part no. MSC-D-10-M9(230V50HZ)/BBA
102956
EL Number 4315417
(Norway)

Product name	Eaton Moeller® series MSC-D DOL starter
Part no.	MSC-D-10-M9(230V50HZ)/BBA
EAN	4015081027958
Product Length/Depth	154 millimetre
Product height	200 millimetre
Product width	45 millimetre
Product weight	0.875 kilogram
Certifications	UL UL Category Control No.: NKJH UL60947-4-1A CSA-C22.2 No. 14-10 CE UL File No.: E123500 CSA Class No.: 3211-04 CSA-C22.2 No. 14 (on request) CSA UL 508 (on request) CSA File No.: 012528 IEC/EN 60947-4-1
Product Tradename	MSC-D
Product Type	DOL starter
Product Sub Type	None
Catalog Notes	IE3-ready devices are identified by the logo on their packaging.
Fitted with:	Short-circuit release
Functions	Temperature compensated overload protection
Class	CLASS 10 A
Connection	Screw terminals
Connection to SmartWire-DT	No
Coordination type	1
Degree of protection	IP20 NEMA Other
Model	Direct starter
Mounting method	Rail mounting possible
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	1
Overload release current setting - min	6.3 A
Overload release current setting - max	10 A
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6000 V AC
Suitable for	Also motors with efficiency class IE3
Type	DOL starter (complete device)
Voltage type	AC
Altitude	Max. 2000 m
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	55 °C
Rated operational current (Ie)	8.5 A

Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V		9 A
Rated operational power at AC-3, 220/230 V, 50 Hz		2.2 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		4 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)
Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V		100 A
Short-circuit release (Irm) - max		155 A
Power consumption, sealing, 50 Hz		1.2 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
Equipment heat dissipation, current-dependent Pvid		8.4 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		2.8 W
Rated operational current for specified heat dissipation (In)		9 A
Static heat dissipation, non-current-dependent Pvs		1.4 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		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.

Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Motor starter/Motor starter combination (EC001037)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss10.0.1-27-37-09-05 [AJZ718013])		
Type of motor starter		Direct online starter (DOL)
With short-circuit release		Yes
Rated control supply voltage Us at AC 50HZ	V	230 - 230

Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Rated operation power at AC-3, 230 V, 3-phase	kW	2.2
Rated operation power at AC-3, 400 V	kW	4
Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated power, 575 V, 60 Hz, 3-phase	kW	0
Rated operation current Ie	A	8.5
Rated operation current at AC-3, 400 V	A	9
Overload release current setting	A	6.3 - 10
Rated conditional short-circuit current, type 1, 480 Y/277 V	A	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	A	0
Rated conditional short-circuit current, type 2, 230 V	A	0
Rated conditional short-circuit current, type 2, 400 V	A	100
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as normally closed contact		0
Ambient temperature, upper operating limit	°C	55
Temperature compensated overload protection		Yes
Release class		CLASS 10 A
Type of electrical connection of main circuit		Screw connection
Type of electrical connection for auxiliary- and control current circuit		Screw connection
Rail mounting possible		Yes
With transformer		No
Number of command positions		0
Suitable for emergency stop		No
Coordination class according to IEC 60947-4-3		Class 1
Number of indicator lights		0
External reset possible		No
With fuse		No
Degree of protection (IP)		IP20
Degree of protection (NEMA)		Other
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFI-safe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Width	mm	45
Height	mm	200
Depth	mm	154

