DATASHEET - MSC-D-10-M9(24VDC)/BBA



DOL starter, 380 V 400 V 415 V: 4 kW, Ir= 6.3 - 10 A, 24 V DC, DC voltage

Powering Business Worldwide

MSC-D-10-M9(24VDC)/BBA Part no. 102973

Catalog No. XTSC010B009BTDNL-A

Alternate Catalog

EL-Nummer

4315434

(Norway)

elivery program			
asic function			DOL starters (complete devices)
Basic device			MSC
vasic device			IE3 ✓
Votes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
onnection to SmartWire-DT			no
Motor ratings			
Motor rating			
AC-3			
380 V 400 V 415 V	P	kW	4
Rated operational current			
AC-3			
380 V 400 V 415 V	I _e	Α	8.5
Rated short-circuit current 380 - 415 V	Iq	kA	100
Setting range			
Setting range of overload releases	l _r	Α	6.3 - 10
Coordination			Type of coordination "1"
Contact sequence			M 3~
Actuating voltage			24 V DC
			DC voltage

Contactor DILM9-10(...)

DOL starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XDM12

Notes

The DOL starters (complete units) consist of a PKZM0 motor protective circuit breaker and a DILM contactor. These combinations are mounted on the busbar adapters.

The connection of the main circuit between the motor protective circuit breaker and the contactor is established with an electrical contact module.

Cannot be combined with NHI-E-...-PKZ0-C standard auxiliary contact with spring-cage terminal.

Further information Technical data PKZM0 Accessories PKZ Technical data DILM Accessories DILM

→ PKZM0 → 072896 → DILM → 281199

Technical data

General

Standards		UL 508 (on request) CSA C 22.2 No. 14 (on request)
Altitude	m	Max. 2000
Ambient temperature		-25 - +55
Main conducting noths		

Main conducting paths			
Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U _e	V	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	l _e	Α	9

Additional technical data

Motor protective circuit breaker PKZM0, PKE	PKZM0 motor-protective circuit-breakers, see motor-protective circuit-breakers/
	PKZM0 product group
	DILM contactors, see contactor product group
	DILET timing relay, ETR, see contactors, electronic timing relays product group

Power consumption

DC operated	Sealing	W	3	
Rating data for approved types				

Rating data for approved types

Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	А	15
DC	V	250
DC	Α	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	9
Heat dissipation per pole, current-dependent	P_{vid}	W	3.1
Equipment heat dissipation, current-dependent	P _{vid}	W	9.3
Static heat dissipation, non-current-dependent	P_{vs}	W	2.6
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties	
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 7.0

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])

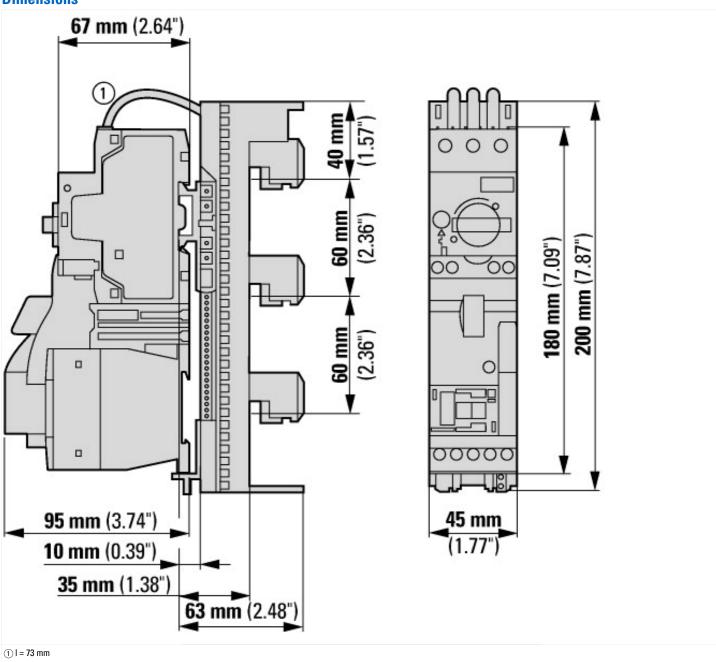
With short-circuit release Yes Rated control supply workage Us at AC 50HZ V 0 - 0 Rated control supply workage Us at AC 50HZ V 0 - 0 Rated control supply workage Us at AC 50HZ V 2 - 24 Rated operation power at AC-3, 230 V, 3-phase IW 2 - 2 Rated operation power at AC-3, 400 V IW 4 Rated opower, 53 V, 60 Hz, 3-phase IW 0 Rated opower, 53 V, 60 Hz, 3-phase IW 0 Rated opower, 53 V, 60 Hz, 3-phase IW 0 Rated operation current te 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, typo 1, 480 Y/277 V A 0 Rated conditional short-circuit current, typo 2, 200 V A 0 Rated conditional short-circuit current, typo 2, 200 V A 0 Rated conditional short-circuit current, typo 2, 200 V A 0 Rated conditional short-circuit current, typo 2, 200 V A 0 Rated conditional short-cir	[A327 10013])		
Rated control supply voltage Us at AC 50HZ V 0 - 0 Rated control supply voltage Us at AC 50HZ V 2 - 24 Voltage type for actuating DC DC 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, 575 V, 60 Hz, 3-phase kW 0 Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current at AC-3, 400 V A 3 Rated operation current at AC-3, 400 V A 9 Overload release current setting A 3 5-10 Rated operation current at AC-3, 400 V A 9 Overload release current setting A 0 0 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 0 Rated conditional short-circuit current, type 2, 230 V A 0 0 Rated conditional short-circuit current, type 2, 230 V A 0 0 Rated conditional short-circuit current, type 2, 400 V A 0 0 Number of auxiliary contacts	Kind of motor starter		Direct starter
Rated control supply voltage Us at AC 60HZ V 24 - 24 Rated control supply voltage Us at DC V 22 - 24 Voltage type for actuating DC Rated operation power at AC-3, 20 V, 3-phase RW 2 Rated operation power at AC-3, 400 V RW 4 Rated power, 575 V, 60 Hz, 3-phase RW 0 Rated operation current te 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 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 400 V A 0 Number of auxiliary contacts as normally closed contact Yes 0 Temperature compensated overload protection Yes CLASS 10 Temperature compensated overload protection Yes Screw connection Release class CLASS 10 Screw connection T	With short-circuit release		Yes
Rated control supply voltage Us at DC V 24 - 24 Voltage type for actuating DC Rated operation power at AC-3, 230 V, 3-phase kW 2 Rated operation power at AC-3, 400 V kW 4 Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current le A 8.5 Rated operation current set-3, 400 V A 9 Overload reliese 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 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Number of auxiliary contacts as normally pone on tract Yes 6 Number of auxiliary contacts as normally pone operation limit *C 6 Temperature compensated overload protection Yes CLASS 10 Temperature compensated overload protection Yes Screw connection	Rated control supply voltage Us at AC 50HZ	V	0 - 0
Voltage type for a ctuating DC Rated operation power at AC-3, 230 V, 3-phase kW 2.2 Bated operation power at AC-3, 400 V kW 4 Bated power, 400 V, 60 Hz, 3-phase kW 0 Bated operation current te A 8.5 Bated operation current at AC-3, 400 V A 9 Overload release current setting A 6.3 - 10 Bated conditional short-circuit current, type 1, 480 V/277 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V A 0 Bated conditional short-circuit current, type 2, 2400 V C <	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated operation power at AC-3, 230 V, 3-phase kW 4 Rated operation power at AC-3, 400 V kW 4 Rated operation power at AC-3, 400 V kW 0 Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current at AC-3, 400 V A 3 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, 500 Y/347 V A 0 Rated conditional short-circuit current, type 2, 400 V A 0 Rated conditional short-circuit current, type 2, 400 V A 0 Number of auxiliary contacts as normally copen contact T 0 Number of auxiliary contacts as normally closed contact Yes 0 Ambient temperature, upper operating limit *C 60 Temperature compensated overload protaction CLASS 10 Yes Type of electrical connection of main circuit Screw connection Screw connection Yee Felease class No No With transformer No	Rated control supply voltage Us at DC	V	24 - 24
Rated operation power at AC-3, 400 V Rated power, 460 V, 60 Hz, 3-phase Rated power, 575 V, 60 Hz, 3-phase Rated power, 575 V, 60 Hz, 3-phase Rated operation current le A Bated operation current at AC-3, 400 V A 9 Rated operation current at AC-3, 400 V A 9 Rated conditional short-circuit current, type 1, 460 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 0 Rated c	Voltage type for actuating		DC
Rated power, 400 V, 60 Hz, 3-phase Rated power, 575 V, 50 Hz, 3-phase Rated operation current le A Bated operation current at AC-3, 400 V Overload release current setting A Bated conditional short-circuit current, type 1, 480 Y/277 V A Rated conditional short-circuit current, type 1, 600 Y/347 V A Rated conditional short-circuit current, type 2, 230 V A Bated conditional short-circuit current, type 2, 230 V A Bated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A Rated conditional short-circuit current, type 2, 400 V A C C C C C C C C C C C C C C C C C C	Rated operation power at AC-3, 230 V, 3-phase	kW	2.2
Rated operation current at AC-3, 400 V Overload release current setting Rated operation current at AC-3, 400 V Overload release current setting Rated conditional short-circuit current, type 1, 480 Y/277 V Rated conditional short-circuit current, type 1, 600 Y/347 V Rated conditional short-circuit current, type 2, 400 V Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally closed contact Release class Release class Release class Releated condition of main circuit Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse With fuse	Rated operation power at AC-3, 400 V	kW	4
Rated operation current le Rated operation current at AC-3, 400 V Overload release current setting Rated conditional short-circuit current, type 1, 480 Y/277 V Rated conditional short-circuit current, type 1, 600 Y/347 V Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 400 V Number of auxiliary contacts as normally poen contact Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit Cemperature compensated overload protection Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3, 400 V Overload release current setting Rated conditional short-circuit current, type 1, 480 Y/277 V Rated conditional short-circuit current, type 1, 600 Y/347 V Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 400 V Rated conditional short-circuit current, type 2, 400 V Rated conditional short-circuit current, type 2, 400 V Rumber of auxiliary contacts as normally closed contact Rumber of auxiliary contacts as normally closed contact Release class Rumber of main circuit Rail mounting possible With transformer Roil mounting possible Roil Roil Release class Rumber of command positions Suitable for emergency stop Coordination class according to IEC 69947-4-3 Number of indicator lights External reset possible With fuse Roil Roil Roil Roil Roil Roil Roil Roil	Rated power, 575 V, 60 Hz, 3-phase	kW	0
Overload release current setting Rated conditional short-circuit current, type 1, 480 Y/277 V Rated conditional short-circuit current, type 1, 600 Y/347 V Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current type 2, 230 V Rated conditional short-circuit current type 2, 230 V Rated conditional short-circuit current circuit contects as normally closed contact Configuration of auxiliary contacts as normally closed contact Release class Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No No No Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse With fuse	Rated operation current le	Α	8.5
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 0 Rated conditional short-circuit current, type 2, 400 V A 0 Rumber of auxiliary contacts as normally closed contact 1 Rumber of auxiliary contacts as normally closed contact 2 Rumber of auxiliary contacts as normally closed contact 2 Rumber of auxiliary contacts as normally closed contact 3 Release class CLASS 10 Release class 1 Type of electrical connection of main circuit 3 Rail mounting possible 4 With transformer No 0 Rumber of command positions 0 Suitable for emergency stop 0 Coordination class according to IEC 60947-4-3 Number of indicator lights 0 External reset possible No 0 With fuse 1 Rail mounting possible No 0 Rumber of indicator lights 0 Rumber of	Rated operation current at AC-3, 400 V	Α	9
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 0 Number of auxiliary contacts as normally open contact 1 1 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit 7 C 60 Temperature compensated overload protection 8 Ves Release class 1 CLASS 10 Type of electrical connection of main circuit 1 Screw connection 1 Screw Connecti	Overload release current setting	Α	6.3 - 10
Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 400 V Rumber of auxiliary contacts as normally open contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact O Robert of Contacts o	Rated conditional short-circuit current, type 1, 480 Y/277 V	Α	0
Rated conditional short-circuit current, type 2, 400 V Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit C 60 Temperature compensated overload protection Release class CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse With fuse	Rated conditional short-circuit current, type 1, 600 Y/347 V	Α	0
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit C 60 Temperature compensated overload protection Release class CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No No No No No No No No No N	Rated conditional short-circuit current, type 2, 230 V	Α	0
Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit CC Ambient temperature, upper operating limit CC Emperature compensated overload protection Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No No No No No No No No No N	Rated conditional short-circuit current, type 2, 400 V	Α	0
Ambient temperature, upper operating limit C 60 Temperature compensated overload protection Release class CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No With fuse No	Number of auxiliary contacts as normally open contact		1
Temperature compensated overload protection Release class CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No No No No No No No No No N	Number of auxiliary contacts as normally closed contact		0
Release class Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Screw connection Rail mounting possible With transformer No Number of command positions Ocordination class according to IEC 60947-4-3 Number of indicator lights OExternal reset possible With fuse CLASS 10 Crew connection Screw connection Corew connection Ocordination Class 1 Class 1 No	Ambient temperature, upper operating limit	°C	60
Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Screw connection Yes With transformer No Number of command positions OSuitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights OExternal reset possible With fuse Screw connection Screw connection Yes Corew connection	Temperature compensated overload protection		Yes
Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Nounder of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Screw connection Yes No No Coordination Class 1 No External reset possible No No No No No No No No No N	Release class		CLASS 10
Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Yes No Class 1 No No No No No No No No No N	Type of electrical connection of main circuit		Screw connection
With transformer No Number of command positions O Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights O External reset possible With fuse No No No	Type of electrical connection for auxiliary- and control current circuit		Screw connection
Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse O No No	Rail mounting possible		Yes
Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No No	With transformer		No
Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible No With fuse No	Number of command positions		0
Number of indicator lights 0 External reset possible No With fuse No	Suitable for emergency stop		No
External reset possible No With fuse No	Coordination class according to IEC 60947-4-3		Class 1
With fuse No	Number of indicator lights		0
	External reset possible		No
Degree of protection (IP)	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 PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Width	mm	45
Height	mm	200
Depth	mm	154

Approvals

UL File No. E123500 UL Category Control No. NKJH CSA File No. 12528 CSA Class No. 3211-04 North America Certification UL listed, CSA certified	• •	
UL Category Control No. NKJH CSA File No. 12528 CSA Class No. 3211-04 North America Certification UL listed, CSA certified	Product Standards	UL60947-4-1A; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking
CSA File No. 12528 CSA Class No. 3211-04 North America Certification UL listed, CSA certified	UL File No.	E123500
CSA Class No. 3211-04 North America Certification UL listed, CSA certified	UL Category Control No.	NKJH
North America Certification UL listed, CSA certified	CSA File No.	12528
	CSA Class No.	3211-04
Specially designed for North America No	North America Certification	UL listed, CSA certified
	Specially designed for North America	No

Dimensions



MSC-D-...-M7[...15]BBA...

Assets (links)

Declaration of CE Conformity

00002885

Instruction Leaflets

IL034038ZU2018_06

Additional product information (links)

IL034038ZU (AWA1210-2246) Direct-on-line sta	L034038ZU (AWA1210-2246) Direct-on-line starter up to 15 A		
IL034038ZU (AWA1210-2246) Direct-on-line starter up to 15 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL034038ZU2018_06.pdf		
IL03402015Z (AWA1210-2324) Busbar adapter			
IL03402015Z (AWA1210-2324) Busbar adapter	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402015Z2018_05.pdf		
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf		
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf		