DATASHEET - MSC-R-10-M7(24VDC)/BBA



Reversing starter, 380 V 400 V 415 V: 3 kW, Ir= 6.3 - 10 A, 24 V DC, DC voltage



MSC-R-10-M7(24VDC)/BBA Part no.

Catalog No. 103005

Alternate Catalog XTSR010B007BTDNL-A

No.

EL-Nummer 4315466

(Norway)

Delivery program

Donitory program			
Basic function			Reversing starters (complete devices)
Basic device			MSC
			IE3 ✓
Notes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Connection to SmartWire-DT			no
Motor ratings			
Motor rating			
AC-3			
380 V 400 V 415 V	P	kW	3
Rated operational current			
AC-3			
380 V 400 V 415 V	I _e	Α	6.6
Rated short-circuit current 380 - 415 V	I_q	kA	100
Setting range			
Setting range of overload releases	I _r	Α	6.3 - 10
Coordination			Type of coordination "1"
Contact sequence			M 3- 11-11-11-11-11-11-11-11-11-11-11-11-11
Actuating voltage			24 V DC
			DC voltage

Motor-protective circuit-breakers PKZM0-10

Contactor DILM7-01(...)

DOL starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XRM12

Notes

The reversing starter (complete units) consists of a PKZM0 motor protective circuit breaker and two DILM contactors.

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.

Complete units with mechanical interlock, starters up to 12 A also feature electrical interlock.

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

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→ DILM

→ 281199

Technical data General

delleral			
Standards			UL 508 (on request) CSA C 22.2 No. 14 (on request)
Altitude		m	Max. 2000
Ambient temperature			-25 - +55
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	7
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			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		Α	15
DC		V	250
DC		Α	1

Design verification as per IEC/EN 61/39

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	10
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
EC/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 (II) 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])

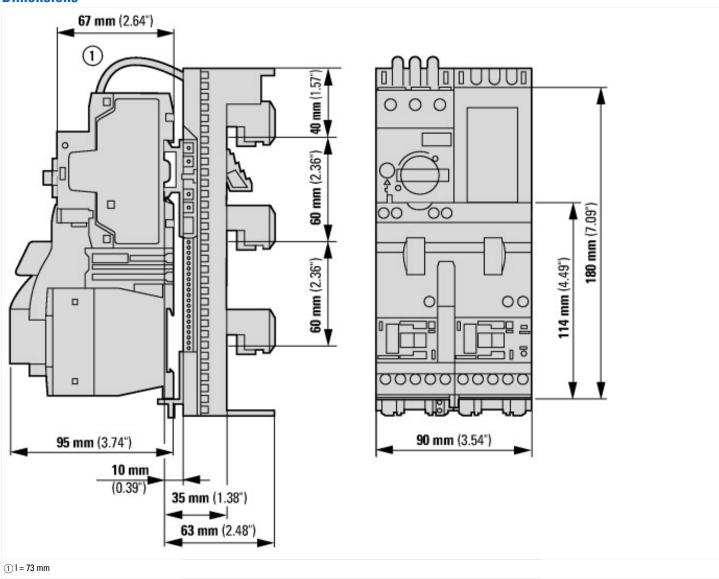
Kind of none stater Remod commod separty Remod commod separty voltage Us or AC 5MHZ V 0 0 Read commod supply voltage Us or AC 5MHZ V 0	[AJZ718013])		
Rated control supply voltage Us at AC 59HZ V 0 - 0 Rated control supply voltage Us at AC 69HZ V 0 - 24 Voltage type for extrating DC Rated operation gower at AC 3, 23HQ sphase WW 15 Rated operation power at AC 3, 23HQ sphase WW 0 Rated operation gower at AC 3, 40HZ WW 0 Rated operation power at AC 3, 40HZ WW 0 Rated operation current at Death 3, shase WW 0 Rated operation current at CA 3, 40HZ A 8.6 Rated operation current at AC 3, 40HZ A 7 Nated conditional at a AC 3, 40HZ A 0 Rated conditional at security type 1, 48HZ/Y77 V A 0 Rated conditional at security type 2, 20HZ A 0 Rated conditional at security type 2, 20HZ A 0 Rated conditional at security type 2, 20HZ C 0 Rated conditional at security type 2, 20HZ C 0 Rated conditional at security type 2, 20HZ C 0 Rated conditional security type 2, 20HZ C 0 </td <td>Kind of motor starter</td> <td></td> <td>Reversing starter</td>	Kind of motor starter		Reversing starter
Rated control supply voltage Us at AC 60HZ V 0 0 Rated control supply voltage Us at AC 60HZ V 24-24 AC Voltage type for actuating W 15 Rated operation power at AC-3, 20V V, 3-phase W 3 Rated operation power at AC-3, 40V W 3 Rated power, 45 W, 50 Hz, 3-phase W 0 Rated operation current te AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current et AC-3, 400 V A 6 Rated operation current setting A 6 9 Rated operation current et AC-3, 400 V A 0 9 Rated operation current et AC-3, 400 V A 0 9 Rated operation current et AC-3, 400 V A 0 9	With short-circuit release		Yes
Rated control supply voltage Us at DC V 24-24 Voltage Upe for actuating DC DC Rated operation power at AC-3.280 V,3 shase W 3 Rated power, 579 V, BLY, 3-phase W 0 Rated operation power at AC-3.480 V A 6 Rated power, 579 V, BLY, 3-phase A 6 Rated operation current at AC-3,480 V A 6 Rated operation current at AC-3,480 V A 0 Overload release current setting A 0 0 Rated conditional short-circuit current, ype 1, 480 Y/277 V A 0 0 Rated conditional short-circuit current, ype 2, 490 V A 0 0 Rated conditional short-circuit current, ype 1, 690 Y/37 V A 0 0 Rated conditional short-circuit current, ype 2, 490 V A 0 0 Number of auxiliary centacts as normally closed contact C 0 0 Number of auxiliary centacts as normally closed contact C 0 0 Release closes C CASS 10 0 0	Rated control supply voltage Us at AC 50HZ	V	0 - 0
Votage type for actuating OC Rated operation power at AC-3, 200 V. a places kW 15 Rated operation power at AC-3, 200 V. a places kW 0 Rated operation power at AC-3, 200 V. kW 0 Rated operation current le Rated operation current le Rated operation current le Rated operation current at AC-3, 400 V. A A Overfood release current setting A 6 3-10 Rated conditional short-circuit current, type 1, 460 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 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 Rated conditional short-circuit current, type 2, 200 V. A	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Read operation power at AC-3,280 V, 3-phase KW 15 Read operation power at AC-3,480 V KW 3 Read operation power at AC-3,480 V KW 0 Read operation current le KW 0 Read operation current le AC 6 Read operation current at AC-3,480 V AC 3 Overlead release current at Setting AC 0 Read conditional short-circuit current, type 1,480 V;277 V AC 0 Read conditional short-circuit current, type 1,480 V;277 V AC 0 Read conditional short-circuit current, type 2,290 V AC 0 Read conditional short-circuit current, type 2,200 V AC 0 Read conditional short-circuit current, type 2,200 V AC 0 Number of auxiliary contacts as normally open contact AC 0 Number of auxiliary contacts as normally open contact CC 0 Release class CC 0 0 Release class CC 0 0 Release class CC 0 0 Release class currents f	Rated control supply voltage Us at DC	V	24 - 24
Rated operation power at AC-3,400 V KW 3 Rated operation power 480 V,80 Hz, 2-phase KW 0 Rated operation current I A A Rated operation current I A A Rated operation current I A A Rated operation current, APA-3,400 V A A Nated conditional short-circuit current, yea 1,400 Y/37 Y A 0 Rated conditional short-circuit current, yea 2,400 V A 0 Rated conditional short-circuit current, yea 2,400 V A 0 Number of auxiliary contacts as normally closed contact B 0 Number of auxiliary contacts as normally closed contact B V Release class V 0 Release class V 0 Toppo of electrical connection of main circuit V V Type of electrical connection for auxiliary and central current circuit V V With transformer V V V Number of command positions V V V Coordination class as according to IEC 09947-43 <t< td=""><td>Voltage type for actuating</td><td></td><td>DC</td></t<>	Voltage type for actuating		DC
Rated power, 960 V, 50 Mt, 3-phase KW 0 Rated operation current st APS, 400 V A 6 Rated operation current st APS, 400 V A 7 Rated operation current st APS, 400 V A 6 Rated operation current st APS, 400 V A 6 Rated conditional short-circuit current, type 1,400 Y/37 V A 0 Rated conditional short-circuit current, type 2,500 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 Rated conditional short-circuit current, type 2,400 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 cortacts as normally open content Y 0 0 Rated conditional short-circuit current, type 2,400 V Y 0 0 Release Class Y 0 0 0 Release Class Y 0 0 0 With trace from a	Rated operation power at AC-3, 230 V, 3-phase	kW	1.5
Rated power, 575 V. 69 Hz. 3-phases KW 0 Rated operation current to 4 A Rated operation current at AC3, 400 V A 3 - 10 Overload release current setting A A 3 - 10 Rated conditional short-circuit current, type 1, 480 V/277 V A A 0 Rated conditional short-circuit current, type 2, 500 V 543 V A 0 Rated conditional short-circuit current, type 2, 400 V A 0 Number of suxiliary contacts as normally closed contact B 0 Number of suxiliary contacts as normally closed contact B 0 Temperature compensated overload protects B 0 Temperature compensated overload protection B 0 Temperature compensated overload protection B 0 Type of electrical connection of main circuit B 0 Type of electrical connection for suxiliary- and control current circuit B 0 Nail mounting possible B 0 0 Cordination less according to EC6847-4.3 B 0 0 Cordination less	Rated operation power at AC-3, 400 V	kW	3
Rated operation current la A 68 Rated operation current and AC-3,400 V A 7 Overload release current setting A A 63 - 10 Rated conditional short-circuit current, type 1,480 Y/27 V A 0 Rated conditional short-circuit current, type 2,500 V347 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Number of auxiliary contacts as normally open contact V 0 Number of auxiliary contacts as normally open contact V 0 Ramber of auxiliary contacts as normally open contact V 0 Ambient temperature, upper operating limit V 0 Release class C 0 Release class C 0 Release class S 0 Nippe of electrical connection of main circuit V 0 Type of electrical connection of main circuit V 0 Number of command positions V 0 0 Suitable for emergency stop V 0 0 Coordinational silest clights	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3, 400 V A 7 Overload release current setting A 3.10 Rated conditional short-circuit current, type 1, 800 Y/377 V A 0 Rated conditional short-circuit current, type 1, 800 Y/377 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Number of auxiliary contacts as normally open contact B 0 Number of auxiliary contacts as normally open contact C 0 Number of auxiliary contacts as normally open contact C 0 Release class C 0 0 Temperature compensated overload protection C 0 0 Release class C 0 0 Type of electrical connection of main circuit C 0 0 Rail mounting possible C 0 0 Number of orimand position C 0 0 Suitable for emergency stop C 0 0 Coordinational class according to IEC 60947-4-3 C 0 Number of indicator fights C <td>Rated power, 575 V, 60 Hz, 3-phase</td> <td>kW</td> <td>0</td>	Rated power, 575 V, 60 Hz, 3-phase	kW	0
Overload release current setting A 3.3 10 Rated conditional short-circuit current, type 1, 480 Y/277 Y A 0 Rated conditional short-circuit current, type 2, 280 Y A 0 Rated conditional short-circuit current, type 2, 280 Y A 0 Number of auxiliary contacts as normally open contact B 0 Number of auxiliary contacts as normally closed contact C 0 Ambient temperature, upper operating limit °C 0 Tomperature compensative duveload protection P 0 Toppe of electrical connection of main circuit CLSS 10 Type of electrical connection of main circuit P 0 With transformer P 0 0 Number of command positions P 0 0 Vipe of electrical connection of main circuit P 0 0 Vipe of electrical connection of main circuit P 0 0 With transformer P 0 0 With transformer P 0 0 Number of command positions P 0<	Rated operation current le	Α	6.6
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, 240 V A 0 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit °C 0 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Screw connection Yes You feeletrical connection for auxiliary- and control current circuit Yes Yes Number of command positions Yes Yes Number of indicator lights Yes Yes Coordination class according to 1EC 60947-43 Yes Yes Number of indicator lights Yes Yes Degree of protection (NEMA) Yes Yes Supp	Rated operation current at AC-3, 400 V	Α	7
Rated conditional short-circuit current, type 2, 230 V A 0 Rated conditional short-circuit current, type 2, 240 V A 0 Number of auxiliary contacts as normally open contact B 0 Number of auxiliary contacts as normally closed contact C 6 Ambient temperature, upper operating limit C 6 Release class CLASS 10 CLASS 10 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit CLASS 10 CLASS 10 Alial mounting possible CLASS 10 CLASS 10 With transformer CLASS 10 CLASS 10 Number of command positions CLASS 10 CLASS 10 Suitable for emergency stop CLASS 10 CLASS 10 Coordinating possible CLASS 10 CLASS 10 Vibration of command positions CLASS 10 CLASS 10 Suitable for emergency stop CLASS 10 CLASS 10 Coordination class according to EC 60947-4-3 CLASS 10 CLASS 10 Number of indicator lights CLASS 10 CLASS 10 Supper of	Overload release current setting	Α	6.3 - 10
Rated conditional short-circuit current, type 2, 200 V A 0 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact °C 0 Ambient temperature, upper operating limit °C 60 Temperature compensated overload protection °C CLASS 10 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit °C Screw connection Real mounting possible °C No With transformer °C No Number of command positions °C Class 1 Suitable for emergency stop Class 1 Class 1 Coordination class according to IEC 60947-4-3 Class 1 No Number of indicator lights °C Class 1 External reset possible °C No With fuse Po2 No Degree of protection (NEMA) °C No Supporting protocol for TCP/P No No Supporting protocol for CAN No No S	Rated conditional short-circuit current, type 1, 480 Y/277 V	Α	0
Rated conditional short-circuit current, type 2, 400 V A 0 Number of auxiliary contacts as normally open contact C 0 Number of auxiliary contacts as normally closed contact °C 0 Ambient temperature, upper operating limit °C 80 Temperature compensated overload protection C Vas Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Screw connection Screw connection Type of electrical connection for auxiliary- and control current circuit Yes Screw connection Rail mounting possible Yes No Condination class according to IEC 80947-43 No Condination class according to IEC 80947-43 No Condination class according to IEC 80947-43 No Class 1 Number of indicator lights Po No Condination class according to IEC 80947-43 Yes No With fuse Po No Condination class according to IEC 80947-43 Yes No Degree of protection (IP) Po No No No Supporting protocol for PROFIBUS No No	Rated conditional short-circuit current, type 1, 600 Y/347 V	Α	0
Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as normally closed contact C 60 Ambient temperature, upper operating limit *C 60 Temperature compensated overload protection *Yes CLSS 10 Release class CLSS 10 Screw connection Type of electrical connection of main circuit Screw connection Screw connection Type of electrical connection for auxiliary- and control current circuit Yes Screw connection With transformer No Yes Number of command positions 0 O Suitable for emergency stop In No Class 1 Coordination class according to IEC 69947-4-3 In No In No Number of indicator lights In No In No External reset possible No No With fuse In P20 Internal reset possible In P20 Degree of protection (IP) In P20 Internal reset possible In Reporting protect for TCP/IP No Supporting protect for TCP/IP No In Reporting protect for TCP/IP No	Rated conditional short-circuit current, type 2, 230 V	Α	0
Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit Temperature compensated overload protection Release class Release class 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 transformer Number of protection (IP) Degree of protection (IP) Supporting protocol for TCP/IP Supporting protocol for ROFIBUS Supporting protocol for CAN Supporting protocol for LTCRBUS Supporting protocol for LTCRBUS Supporting protocol for MDBUS	Rated conditional short-circuit current, type 2, 400 V	Α	0
Ambient temperature, upper operating limit *C 60 Temperature compensated overload protection Yes Release class CLASS 10 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) 1P20 Degree of protection (IPMA) 1P20 Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for INTERBUS No Supporting protocol for INTERBUS No Supporting protocol for ASI No Supporting protocol for MODBUS No	Number of auxiliary contacts as normally open contact		0
Temperature compensated overload protection Release class 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 No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for ROFIBUS Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for MODBUS Supporting protocol for MODBUS Yes CLASS 10 No	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 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 No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for MODBUS Supporting protocol for MODBUS Supporting protocol for MODBUS CLASS 10 Screw connection Screw con	Ambient temperature, upper operating limit	°C	60
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 No With truse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for CAN Supporting protocol for CAN Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS Supporting protocol for MODBUS Server and control circuit Screw connection Yes Screw connection Screw connection Yes Yes No O Codd No O Class 1 N	Temperature compensated overload protection		Yes
Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Supporting protocol for TCP/IP Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS See Supporting protocol for MODBU	Release class		CLASS 10
Rail mounting possible With transformer No Number of command positions Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TCP/IP Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	Type of electrical connection of main circuit		Screw connection
With transformer Number of command positions Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS No No Supporting protocol for MODBUS No Supporting protocol for MODBUS	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 No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS Supporting protocol for MODBUS No Supporting protocol for MODBUS No No No No No No No No No N	Rail mounting possible		Yes
Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights O External reset possible No With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS No Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	With transformer		No
Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible No With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS No No No No No No No No No N	Number of command positions		0
Number of indicator lights External reset possible No With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PR0FIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	Suitable for emergency stop		No
External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	Coordination class according to IEC 60947-4-3		Class 1
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	Number of indicator lights		0
Degree of protection (IP) Degree of protection (NEMA) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	External reset possible		No
Degree of protection (NEMA) Supporting protocol for TCP/IP No Supporting protocol for PR0FIBUS No Supporting protocol for CAN Supporting protocol for INTERBUS No Supporting protocol for ASI Supporting protocol for MODBUS No	With fuse		No
Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN Supporting protocol for INTERBUS No Supporting protocol for ASI Supporting protocol for MODBUS No	Degree of protection (IP)		IP20
Supporting protocol for PROFIBUS Supporting protocol for CAN No Supporting protocol for INTERBUS No Supporting protocol for ASI No Supporting protocol for MODBUS No	Degree of protection (NEMA)		Other
Supporting protocol for CAN Supporting protocol for INTERBUS No Supporting protocol for ASI Supporting protocol for MODBUS No	Supporting protocol for TCP/IP		No
Supporting protocol for INTERBUS No Supporting protocol for ASI No Supporting protocol for MODBUS No	Supporting protocol for PROFIBUS		No
Supporting protocol for ASI Supporting protocol for MODBUS No	Supporting protocol for CAN		No
Supporting protocol for MODBUS No	Supporting protocol for INTERBUS		No
	Supporting protocol for ASI		No
Supporting protocol for Data-Highway No	Supporting protocol for MODBUS		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	90
Height	mm	200
Depth	mm	154

Approvals

Product Standards	UL60947-4-1A; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking
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
Specially designed for North America	No

Dimensions



Assets (links)

MSC-R-...-M7[...12]BBA...

Declaration of CE Conformity

00002885

Instruction Leaflets

IL03402006Z2018_04

Additional product information (links)

IL03402006Z (AWA1210-2248) Reversing starter to 12 A		
IL03402006Z (AWA1210-2248) Reversing starter ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402006Z2018_04.pdf to 12 A		
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	