DATASHEET - MSC-R-2,5-M7(24VDC)/BBA



Reversing starter, 380 V 400 V 415 V: 0.75 kW, Ir= 1.6 - 2.5 A, 24 V DC, DC voltage



Part no. MSC-R-2,5-M7(24VDC)/BBA

Catalog No. 103002

Alternate Catalog

XTSR2P5B007BTDNL-A

No.

EL-Nummer 4315463

(Norway)

Delivery 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	0.75
Rated operational current			
AC-3			
380 V 400 V 415 V	I _e	Α	1.9
Rated short-circuit current 380 - 415 V	I_q	kA	100
Setting range			
Setting range of overload releases	l _r	Α	1.6 - 2.5
Coordination			Type of coordination "1" Type of coordination "2"
Contact sequence			M 3- 1111111
Actuating voltage			24 V DC
			DC voltage
Motor-protective circuit-breakers PKZM0-2,5			

Motor-protective circuit-breakers PKZM0-2,5

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 PKZMO Accessories PKZ Technical data DILM Accessories DIL Page

→ PKZM0 → 072896

→ DILM

→ 281199

Technical data General

Contra			
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	I _e	Α	2.5
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

Design verification as per IEC/EN 61439

DC

echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	2.5
Heat dissipation per pole, current-dependent	P _{vid}	W	1.9
Equipment heat dissipation, current-dependent	P _{vid}	W	5.7
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 (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])

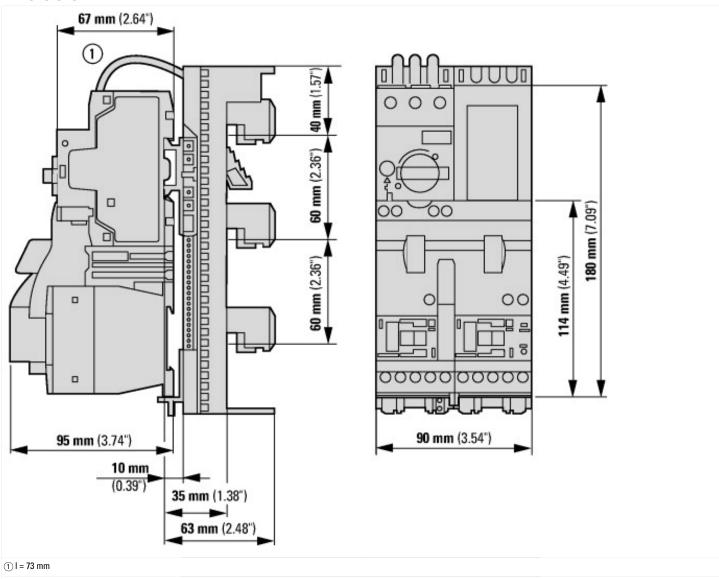
With short-circuit releases Ves Rated control supply voltage Us at AC SIM2 V 0 - 0 Valuege upply voltage Us at AC SIM2 V 2 - 24 Valuege upply voltage Us at AC SIM2 V 2 - 24 Valuege upply voltage Us at AC SIM2 V V 2 - 24 Valuege upply voltage Us at AC SIM2 V V 0 - 0 Rated operation power at AC SIM2 V, 3 phase kW 0 - 5 Rated operation power at AC SIM2 V, 3 phase kW 0 - 0 Rated operation current le A 1 9 Rated operation current at AC SIM2 V, 3 phase A 1 9 Rated operation current at AC SIM2 V, 3 phase A 1 5 Rated operation current at AC SIM2 V, 3 phase A 1 5 Rated operation current at AC SIM2 V, 3 phase A 1 5 Rated conditional shart-circuit current, ye 1, 480 Y/27 V A 0 Rated conditional shart-circuit current, ye 2, 20 V A 50000 Rated conditional shart-circuit current, ye 2, 20 V A 50000 Number of suciliary contacts as normally cetoet contact *C 80	[AJZ718013])		
Relate control supply voltage Us at AC 501/Z V 0 - 0 Relate control supply voltage Us at AC 601/Z V 2 - 24 Voltage type for a clustring D D Relate departition power at AC 3, 200 V, 3 phase RW 0.37 Relate opportation power at AC 3, 200 V, 3 phase RW 0 Related power, 600 V, 50 Hz, 3 phase RW 0 Related power, 607 V, 60 Hz, 3 phase RW 0 Related power, 607 V, 60 Hz, 3 phase RW 0 Related power, 607 V, 60 Hz, 3 phase RW 0 Related power, 607 V, 60 Hz, 3 phase RW 0 Related power, 607 V, 60 Hz, 3 phase RW 0 Related conditional standary correct active c	Kind of motor starter		Reversing starter
Risted control supply voltage Us at AC 69H2 V 2 - 24 Risted control supply voltage Us at AC 69H2 V 2 - 24 Voltage type for actuating IV 0.7 Risted operation power at AC-3, 200 V, 3-phase IV 0.7 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted power, 68 V, 50 H2, 3-phase IV 0 Risted confidence at the C-40 V, 50 H2, 3-phase IV 0 Risted confidence at the C-40 V, 50 V, 50 H2, 3-phase A 1.5-25 Risted confidence at the C-crucit current, type 1, 400 V/277 V A 0 Risted confidence at the C-crucit current, type 2, 200 V A 5000 Risted confidence at the C-crucit current, type 2, 200 V A 5000 Risted confidence at the C-crucit current, type 2, 200 V A 5000 Risted confidence at the C-crucit current, type 2, 200 V A 5	With short-circuit release		Yes
Rated control supply violage Us at DC V 24-24 Vollage type for ectualing DC Rated operation power at AC-3.200 V, 3-phase WW 0.75 Rated operation power at AC-3.200 V, 3-phase WW 0.75 Rated powers, 575 V, 60 Hz, 3-phase WW 0 Rated operation current tell A 1.92 Rated operation current at AC-2, 400 V A 2.5 Overload release current setting A 1.62-25 Rated conditional short-circuit current, type 1, 400 V, 727 V A 0 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Rated conditional short-circuit current type 2, 200 V A 50000 Rated conditional short-circuit current type 2, 400 V A 50000 Rated conditional short-circuit current type 2, 400 V A 50000 Number of auxiliary contacts an normally closed contact V 8 Rated conditional short-circuit current circuit V 8 Roesea class V C 80 <td>Rated control supply voltage Us at AC 50HZ</td> <td>V</td> <td>0 - 0</td>	Rated control supply voltage Us at AC 50HZ	V	0 - 0
Voltage type for a cluating DC Rated operation power at AG-3, 280 V.3 phase kW 0.37 Rated operation power at AG-3, 480 V kW 0.0 Rated power, 40 V.B. 3, phase kW 0 Rated power, 40 V.B. 3, phase kW 0 Rated operation current at AG-3, 400 V A 1.3 Overload release current setting A 1.6-2.5 Rated conditional short-circuit current, type 1, 469 Y/277 V A 0 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current type 2, 200 V A 50000 Rated conditional short-circuit current type 2, 200 V A 50000 Rated conditional short-circuit current type 2, 200 V	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Ristort operation power at AC-3, 200 V, 3-phase kW 0.37 Rated power, AC-3, 4,00 V kW 0.75 Rated power, AC-3, 24,00 V kW 0 Rated power, AC-3, 24,00 V kW 0 Rated operation current at AC-3, 400 V A 1.9 Rated conditional short-circuit current, type 1, 460 Y/277 V A 0 Rated conditional short-circuit current, type 1, 600 Y/247 V A 0 Rated conditional short-circuit current, type 2, 200 V A 50000 Rated conditional short-circuit current, type 2, 200 V A 50000 Number of auxiliary contacts as normally closed contact C 0 Number of auxiliary contacts as normally closed contact C 0 Release class C CASS 10 Temperature compensated overload protection C 6 Release class C CASS 10 Temperature compensated overload protection C No With transformer V No Number of auxiliary- and central current circuit C No Valuation frome No </td <td>Rated control supply voltage Us at DC</td> <td>V</td> <td>24 - 24</td>	Rated control supply voltage Us at DC	V	24 - 24
Rated operation power at AC-3, 400 V kW 0.75 Rated operation power, 480 V.8 DH.2, -phase kW 0 Rated operation current le A 1.9 Rated operation current st AC-3, 400 V A 2.5 Overload release current setting A 1.6 - 2.5 Rated conditional short-circuit current, type 1, 480 V/277 V A 0 Rated conditional short-circuit current, type 2, 480 V A 0 Rated conditional short-circuit current, type 2, 230 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally open contact "C 60 Ambient temperature, upper operating limit "C 60 Tomperature compensated overload protection "C 60 Release class Survey connection Screw connection Type of electrical connection for auxiliary- and control current circuit Screw connection Screw connection Type of electrical connection for auxiliary control c	Voltage type for actuating		DC
Rated power, 460 V, 60 Hz, 3-phase kW 0 Rated operation current le A 1.9 Rated operation current le and operation current al AC-3, 400 V A 2.5 Overload release current setting A 1.6 - 2.5 Rated conditional short-circuit current, type 1, 480 V/277 V A 0 Rated conditional short-circuit current, type 1, 200 V/374 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V A 50000 Rated conditional short-circuit current, type 2, 480 V 4	Rated operation power at AC-3, 230 V, 3-phase	kW	0.37
Rated power, 75 V, 60 Hr, 3-phase kW 0 Rated operation current te A 19 Rated operation current at AC-3, 400 V A 15 - 25 Overload rolesses current setting A 15 - 25 Rated conditional short-circuit current, type 1, 480 V;277 V A 0 Rated conditional short-circuit current, type 2, 500 V;347 V A 5000 Rated conditional short-circuit current, type 2, 400 V A 5000 Number of auxiliary contacts as normally closed contact B 0 Number of auxiliary contacts as normally closed contact V 0 Ambient temperature compensated overload protection V 6 Type of electrical connection of main circuit V CLASS 10 Type of electrical connection for auxiliary—and control current circuit V Screw connection With transformer V Q CLASS 10 With transformer V No CLASS 10 With transformer V No CLASS 10 With transformer V No CLASS 10 Very Confidence of comment po	Rated operation power at AC-3, 400 V	kW	0.75
Rated operation current la A 19 Rated operation current at AC-3,400 V A 25 Overload release current setting A 16 - 25 Rated conditional short-circuit current, type 1,480 Y/277 V A 0 Rated conditional short-circuit current, type 1,580 Y/377 V A 50000 Rated conditional short-circuit current, type 2,230 V A 50000 Number of auxiliary contacts as normally open contact B 0 Number of auxiliary contacts as normally closed contact "C 60 Ambient temperature, upper operating limit "C 60 Temperature compensated overload protection "C 60 Release class "C CLASS 10 Type of electrical connection of main circuit "C 60 Type of electrical connection for auxiliary- and control current circuit "C 60 Rall mounting possible "C 60 With transformer "C 60 Number of command positions "C 60 Statable for emergency stop "C 60 Coordination class accord	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3, 400 V A 18 - 2.5 Overload release current setting A 18 - 2.5 Rated conditional short-circuit current, type 1, 800 Y/277 V A 0 Rated conditional short-circuit current, type 2, 230 V A 50000 Rated conditional short-circuit current, type 2, 240 V A 50000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact V 60 Temperature compensated overload protection V 60 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit C 80 Rel and ununting possible Y Yes With transformer No No Number of command positions Y No Suitable for emergency stop No No Coordination class according to IEC 88947-4-3 No No Number of indicator lights Y No External reset possible No No With fuse No No </td <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 1.5 - 2.5 Rated conditional short-circuit current, type 1,480 Y/277 V A 0 Rated conditional short-circuit current, type 2,600 V/347 V A 50000 Rated conditional short-circuit current, type 2,000 V A 50000 Rated conditional short-circuit current, type 2,400 V A 50000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact 6 6 Ambient temperature, upper operating limit °C 60 Temperature compensated overload protection Yes CLASS 10 Type of electrical connection of main circuit Screw connection Yes Type of electrical connection for auxiliary- and control current circuit Yes Yes Number of command positions 0 No Suitable for emergency stop Yes No Coordination class according to IEC 60947-4-3 Yes No Number of indicator lights No No External reset possible Yes No Supperating protocol for ICP/IP	Rated operation current le	Α	1.9
Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 280 V A 500000 Rated conditional short-circuit current, type 2, 280 V A 500000 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 80 Temperature compensated overload protection Yes CLASS 10 Release class CLASS 10 Screw connection Type of electrical connection of main circuit Screw connection Screw connection With transformer Yes No Number of command positions Yes No Suitable for emergency stop Yes No Coordination class a coording to IEC 69947-4-3 Yes Release 2 Number of indicator lights Yes No Coordination class a coording to IEC 69947-4-3 Yes No Degree of protection (IP) Yes No Degree of protection (IP) Yes No	Rated operation current at AC-3, 400 V	Α	2.5
Rated conditional short-circuit current, type 2, 230 V A 500000 Rated conditional short-circuit current, type 2, 230 V A 500000 Number of auxiliary contacts as normally open contact C 60 Number of auxiliary contacts as normally closed contact C 60 Temperature compensated overload protection C 60 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 Auxiliary of command positions No Suitable for emergency stop No Coordination class according to IEC 60947-4-3 C Number of indicator lights No External reset possible No With fuse No Degree of protection (IP) No Degree of protection (IP) No Supporting protocol for TCPIP No Supporting protocol for PROFIBUS No Supporting protocol for FROFIBUS No Supporting protocol for FROFIBUS No Supporting protocol for	Overload release current setting	Α	1.6 - 2.5
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 Rumber of auxiliary contacts as normally closed contact Rumber of commenature compensated overload protection Rumber of editectrical connection of main circuit Rype of electrical connection of main circuit Rumber of electrical connection for auxiliary- and control current circuit Rumber of command positions Rumber of command positions Rumber of command positions Rumber of command positions Rumber of indicator lights Rumber of indicator lights Rumber of indicator lights Rumber of protection (IPP) Rumper of protectio	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 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 Degree of protection (IPE) Supporting protocol for PPOFIBUS Supporting protocol for TPOFIBUS Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS	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 6 Temperature compensated overload protection Release class Release class CLASS 10 Strew connection 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) Degree of protection (NEMA) Supporting protocol for PROFIBUS Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for M00BUS	Rated conditional short-circuit current, type 2, 230 V	Α	50000
Number of auxiliary contacts as normally closed contact °C 60 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 No Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Class 2 Number of indicator lights No Stetranal reset possible No With fuse No Degree of protection (IP) IP20 Degree of protection (IREMA) IP20 Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for CAN No Supporting protocol for INTERBUS No Supporting protocol for ASI No Supporting protocol for ASI No	Rated conditional short-circuit current, type 2, 400 V	Α	50000
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 Yes Rail mounting possible Yes With transformer No Number of command positions O Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Class 2 Number of indicator lights O Suttenal reset possible No With fuse No Degree of protection (IP) No Degree of protection (NEMA) No Supporting protocol for TCP/IP No Supporting protocol for PR0FIBUS No Supporting protocol for CAN No Supporting protocol for INTERBUS No Supporting protocol for ASI 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 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 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 CAN Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for MDDBUS	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 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 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 ASI Supporting protocol for MODBUS CLASS 10 CLASS 10 Screw connection Scre	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 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 Oegree 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 Supporting protocol fo	Temperature compensated overload protection		Yes
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 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 Supporting protocol for MODBUS	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 No With fuse No Degree of protection (IP) Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for ASI Supporting protocol for MODBUS	Type of electrical connection of main circuit		Screw connection
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 TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for NEMBUS Supporting protocol for ASI 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 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 NEBBUS Supporting protocol for ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	Rail mounting possible		Yes
Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible No With fuse 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 No No No No No No No No N	With transformer		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 PR0FIBUS Supporting protocol for CAN Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for ASI Supporting protocol for MODBUS Supporting protocol for MODBUS	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 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	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 ASI Supporting protocol for MODBUS No Supporting protocol for MODBUS	Coordination class according to IEC 60947-4-3		Class 2
With fuse 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 Supporting protocol for MODBUS No No No No No No No No No N	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 ASI Supporting protocol for MODBUS No No	External reset possible		No
Degree of protection (NEMA) 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 Supporting protocol for MODBUS	With fuse		No
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	Degree of protection (IP)		IP20
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	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 Supporting protocol for ASI 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 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	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



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

Assets (links)

Declaration of CE Conformity

00002885

Instruction Leaflets

IL03402006Z2018_04

Additional product information (links)

IL03402006Z (AWA1210-2248) Reversing starter	L03402006Z (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		