DATASHEET - MSC-R-2,5-M7(230V50HZ)/BBA



Accessories DIL

Reversing starter, 380 V 400 V 415 V: 0.75 kW, Ir= 1.6 - 2.5 A, 230 V 50 Hz, 240 V 60 Hz, AC voltage



Part no. MSC-R-2,5-M7(230V50HZ)/BBA

Catalog No. 102986

Alternate Catalog XTSR2P5B007BFNL-A

No.

EL-Nummer 4315447

(Norway) **Delivery program** Basic function Reversing starters (complete devices) MSC Basic device Notes Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging. Connection to SmartWire-DT **Motor ratings** Motor rating AC-3 380 V 400 V 415 V kW 0.75 Rated operational current AC-3 380 V 400 V 415 V 1.9 Α Rated short-circuit current 380 - 415 V 100 I_{q} kΑ **Setting range** Setting range of overload releases Α 1.6 - 2.5Coordination Type of coordination "1" Type of coordination "2" Contact sequence 230 V 50 Hz, 240 V 60 Hz Actuating voltage AC voltage Motor-protective circuit-breakers PKZM0-2,5 Contactor DILM7-01(...) DOL starter wiring set Mechanical connection element and electrical electric contact module PKZM0-XRM12 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** Page → PKZM0 Technical data PKZM0 Accessories PKZ → 072896 Technical data DILM → 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 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	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
DILM contactors			
Power consumption of the coil in a cold state and 1.0 x $\ensuremath{\text{U}_{\text{S}}}$			
Dual-voltage coil 50 Hz	Sealing	W	1.2
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 61439

Design vernication as per icc/cm 01433			
Technical 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	1.4
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

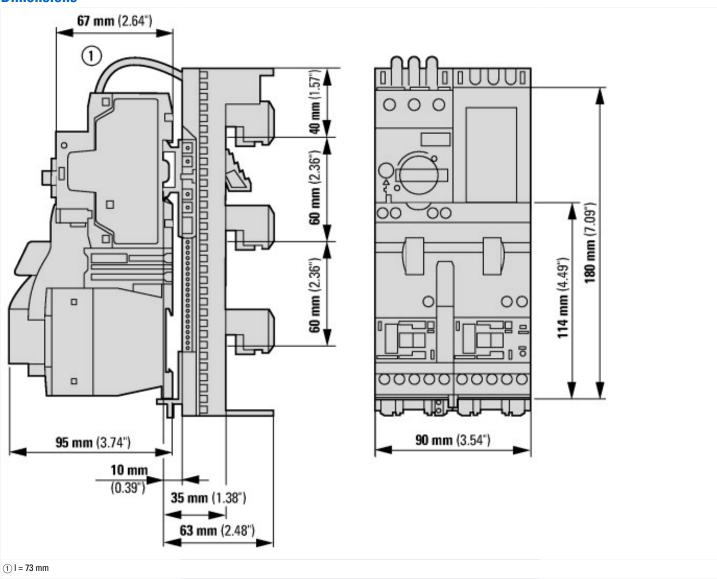
With shart-circular elease Yes Rated control supply violage Us at AC 50HZ V 20 - 200 Rated control supply violage Us at AC 50HZ V 0 - 0 Rated control supply violage Us at AC 50HZ V 0 - 0 Rated control supply violage Us at AC 50HZ V 0 - 0 Rated persion power at AC-3.20V.3 phase IM 0.75 Rated powers ABO V, S0 HZ, 3-phase IM 0 - 0 Rated powers, 75V, VB HZ, 3-phase IM 0 - 0 Rated powers, 75V, VB HZ, 3-phase IM 0 - 0 Rated operation current a AC-3, 400 V A 2 - 5 Voerload release current setting A 0 - 0 Rated operation current type 1, 680 Y/27 V A 0 - 0 Rated conditional short-circuit current, yee 1, 680 Y/27 V A 0 - 0 Rated conditional short-circuit current, yee 2, 600 V A 0 - 0 Rated conditional short-circuit current, yee 2, 400 V A 0 - 0 Rated conditional short-circuit current, yee 2, 400 V A 0 - 0 Rated conditional short-circuit current, yee 2, 400 V A 0 - 0	[AJZ718013])		
Rated control supply voltage Us at AC 50HZ V 20 - 230 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 0.37 Rated operation power at AC-3, 430 V kW 0.7 Rated power, 475 V, 60 Mt, 3-phase kW 0 Rated power, 475 V, 60 Mt, 3-phase kW 0 Rated power, 475 V, 60 Mt, 3-phase kW 0 Rated power, 475 V, 60 Mt, 3-phase kW 0 Rated operation current at AC-3, 400 V A 2.5 Vorted at release current at AC-3, 400 V A 0 Vorted at release current at AC-3, 400 V A 0 Rated conditional short-circuit current, type 1, 600 V347 V A 0 Rated conditional short-circuit current, type 2, 200 V A 50000 Number of auxiliary contacts as normally open contact V 9 Number of auxiliary contacts as normally open contact V C Release class V V Scraw connection Release class V	Kind of motor starter		Reversing starter
Rated control supply voltage Us at AC 88HZ V 0 - 0 Rated donn'tol supply voltage Us at DC V 0 - 0 Voltage type for actuating Management AC -3, 230 V.3-phase KW 0.375 Rated operation power at AC-3, 400 V KW 0.75 Rated power, 460 V.6 H.3phase KW 0 Rated power, 575 V.6 OH. J.3-phase WW 0 Rated power, 575 V.6 OH. J.3-phase A 1.9 Rated power, 575 V.6 OH. J.3-phase A 1.0 Rated power, 575 V.6 OH. J.3-phase A 1.0	With short-circuit release		Yes
Rated control supply voltage Us at DC V 0 - 0 Voltage type for actuating AC Rated operation power at AC-3, 200 V, 3-phase IAW 0.37 Rated powers ABC-9, 400 V IAW 0.7 Rated powers ABC-9, 400 V IAW 0.0 Rated powers 75 V, 50 Hz, 3-phase IAW 0.0 Rated operation current at AC-3, 400 V A 1.9 Rated operation current at AC-3, 400 V A 2.5 Overload release current sotting A 1.6 - 2.5 Rated conditional short-circuic current, type 1, 480 Y/277 V A 0 Rated conditional short-circuic current, type 1, 480 Y/277 V A 5000 Rated conditional short-circuic current, type 2, 280 V A 5000 Rated conditional short-circuic current, type 2, 400 V A 5000 Number of auxiliary contacts as normally open contact P 60 Number of auxiliary contacts as normally open contact P 60 Temperature compensated overload protection P 60 Rules of electrical connection of main circuit P 60 <t< td=""><td>Rated control supply voltage Us at AC 50HZ</td><td>V</td><td>230 - 230</td></t<>	Rated control supply voltage Us at AC 50HZ	V	230 - 230
Voltage type for actuating AC Rated operation power at AC-3, 280 V, 3-phase kW 0.37 Rated operation power at AC-3, 280 V, 3-phase kW 0 Rated operation power at AC-3, 280 V, 3-phase kW 0 Rated operation current le A 1.9 Rated operation current at AC-3, 280 V A 2.5 Read operation current at AC-3, 280 V A 1.8 - 2.5 Read conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 280 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 as normally closed contact C 6 Ambient temperature, upper operating limit *C 80 Temperature compensated overload protection *Yes Screw connection Type of electrical connection of main circuit *Yes No Type of electrical connection for auxiliary- and control cu	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated operation power at AC-3, 20 V 3-phases kW 0.75 Rated power, 40 W, 60 Hz, 3-phase kW 0.75 Rated power, 40 W, 60 Hz, 3-phase kW 0 Rated operation current te A 1.9 Rated operation current at AC-3, 400 V A 1.5 -2.5 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, 230 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Number of auxillary contacts as normally closed contact A 60 Ambient tamperature, upper operating limit C 6 Temperature compensated overload protection C 60 Release class C 76 Type of electrical connection of main circuit C 76 Type of electrical connection for auxiliary- and central current circuit C 76 Rall mounting possible C 76 With transformer C 76 Numbe	Rated control supply voltage Us at DC	V	0 - 0
Rated operation power at AC-3, 400 V kW 0.75 Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current to Rated operation current at AC-3, 400 V A 1.9 Rated operation current at AC-3, 400 V A 2.5 Overload ralease current setting A 1.6 - 2.5 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 230 V A 50000 Rated conditional short-circuit current, type 2, 230 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 open contact Ve 0 Release class Ve CLASS 10 Type of electrical connection of main circuit Ve Screw connection Type of electrical connection for auxiliary- and control current circuit Ve No Number of command positions Ve No Number of indicator lights Ve CLASS 10 Type of electrical connection for auxilia	Voltage type for actuating		AC
Rated power, 480 V, 60 Hz, 3-phase kW 0 Rated peration current le peration current et AC3, 400 V A 1.3 Operation current et aC43, 400 V A 1.6 -2.5 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 1, 800 Y/37 V A 0 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 as normally open contact 0 0 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit *C 8 Temperature compensated overload protection *C 8 Type of electrical connection of main circuit *C 8 Type of electrical connection for auxiliary- and control current circuit *C 8 Number of command positions *C 8 Viet transformer *P 8 Viet transformer *C 8 Viet transformer *P 0	Rated operation power at AC-3, 230 V, 3-phase	kW	0.37
Rated power, 575 V, 60 Hz, 3-phase KW 0 Rated operation current le Au 1.9 Rated operation current setting Au 2.5 Rated conditional short-circuit current, type 1, 480 Y/277 V Au 0 Rated conditional short-circuit current, type 1, 800 Y/347 V Au 0 Rated conditional short-circuit current, type 2, 230 V Au 50000 Rated conditional short-circuit current, type 2, 240 V Au 50000 Rumber of auxiliary cortacts as normally open contact 0 0 Number of auxiliary cortacts as normally open contact 0 0 Ambient temperature, upper operating limit FL 80 Temperature compensated overload protection Yes CLASS 10 Reliasse class CLASS 10 Screw connection Type of electrical connection of main circuit Yes Screw connection Reliance for command positions Yes No Number of command positions In No Suitable for emergency type Yes No Coordination class according to IEC 609473 No No	Rated operation power at AC-3, 400 V	kW	0.75
Rated operation current le A 1.9 Rated operation current at AC-3, 400 V A 2.5 Overload release current setting A 1.6 - 2.5 Rated conditional short-circuit current, type 1, 680 Y/37 V A 0 Rated conditional short-circuit current, type 2, 230 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as normally closed contact °C 6 Ambient tamperature, upper operating limit °C 6 Temperature compensated overload protection CLAS S 10 Temperature compensated overload protection CLAS S 10 Type of electrical connection of main circuit CS exew connection Type of electrical connection for auxiliary- and control current circuit CS exew connection Rail mounting possible No With transformer No Coordination class according to IEC 60947-4.3 No Coordination class according to IEC 60947-4.3 No Cupere of protection (IVE) No	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3,400 V A 2.5 Overload release current setting A 1.6-2.5 Rated conditional short-circuit current, type 1,800 Y/347 V A 0 Rated conditional short-circuit current, type 2,200 Y A 50000 Rated conditional short-circuit current, type 2,240 V A 50000 Number of auxiliary contacts as normally closed contact C 6 Number of auxiliary contacts as normally closed contact C 80 Ambient tamperature, upper operating limit C 80 Temperature compensated overload protection CLASS 10 Type of electrical connection of main circuit SCEW connection Type of electrical connection of main circuit SCEW connection Rail mounting possible Yes With transformer No No Number of command positions SCEW connection 10 Suitable for emergency stop No 10 Coordination class according to IEC 60947-43 No 10 Number of indicator lights No 10 External reset possible No 10 </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 1.6 - 2.5 Rated conditional short-circuit current, type 1, 800 Y/347 V A 0 Rated conditional short-circuit current, type 2, 300 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact C 60 Ambient temperature, upper operating limit °C 80 Temperature compensated overload protection C 80 Release class CLASS 10 Currence onnection Type of electrical connection of main circuit C 80 Type of electrical connection for auxiliary- and control current circuit C 80 Rail mounting possible Yes 80 With transformer No No Number of command positions Yes 80 Suitable for emergency stop Cass 2 Cass 2 Cordination class according to IEC 60947-4-3 No No With fuss No No Degree of	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, 230 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact °C 60 Number of auxiliary contacts as normally closed contact Ves CLASS 10 Temperature compensated overload protection CLASS 10 Screw connection 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 Yes Yes Suitable for emergency stop Yes Yes Coordination class according to IEC 60947-4-3 Yes Yes Number of indicator lights Yes Yes Cordination class according to IEC 60947-4-3 Yes Yes Number of indicator lights Yes Yes External reset possible Yes Yes With fund	Rated operation current at AC-3, 400 V	Α	2.5
Rated conditional short-circuit current, type 1, 600 1/347 V A 0 Rated conditional short-circuit current, type 2, 230 V A 50000 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact 0 6 Ambient temperature, upper operating limit °C 60 Temperature compensated overload protection C 60 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Screw connection 80 Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for auxiliary- and control current circuit Yepe of electrical connection for for electrical connection for auxiliary- and control current circuit Y	Overload release current setting	Α	1.6 - 2.5
Rated conditional short-circuit current, type 2, 230 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit °C 60 Temperature compensated overload protection Yes CLASS 10 Release class CLASS 10 Screw connection Type of electrical connection of main circuit Screw connection Yes Rail mounting possible Yes Yes With transformer No No Number of command positions O O Suitable for emergency stop Class 2 Class 2 Coordination class according to IEC 60947-4-3 Class 2 Class 2 Number of indicator lights O No External reset possible No No With fuse Po No Degree of protection (IP) Po No Supporting protocol for TCP/IP No No Supporting protocol for PROFIBUS No No <tr< td=""><td>Rated conditional short-circuit current, type 1, 480 Y/277 V</td><td>Α</td><td>0</td></tr<>	Rated conditional short-circuit current, type 1, 480 Y/277 V	Α	0
Rated conditional short-circuit current, type 2, 400 Y A 50000 Number of auxiliary contacts as normally closed contact C C Ambient temperature, upper operating limit "C 60 Temperature compensated overload protection "C 60 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Screw connection Yes With transformer Yes No With transformer No No Number of indicator lights Yes Class 2 Visible for emergency stop Class 2 Class 2 Number of indicator lights Yes Class 2 External reset possible Yes Qe With fuse Yes Qe External reset possible Yes Qe With fuse Yes Qe External reset possible Yes Qe With fuse Yes Qe Degree of protection (IP) Yes Qe Supporting protocol for TCP/IP Yes Qe	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 CLASS 10 Release class CLASS 10 Curve connection Type of electrical connection of main circuit Yes Screw connection Rail mounting possible Yes Yes With transformer Yes No Number of command positions Yes No Suitable for emergency stop No No Coordination class according to IEC 60947-4-3 Yes Class 2 Number of indicator lights Yes No External reset possible No No With fuse No No Degree of protection (IP) No No Supporting protocol for TCP/IP No No Supporting protocol for TCP/IP No No Supporting protocol for PROFIBUS No No Supporting protocol for CAN <	Rated conditional short-circuit current, type 2, 230 V	Α	50000
Number of auxiliary contacts as normally closed contact 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 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 No External reset possible No With fuse No Degree of protection (IP) P20 Degree of protection (NEMA) Other Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No	Rated conditional short-circuit current, type 2, 400 V	Α	50000
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 fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for PROFIBUS Supporting protocol for CAN Suriable for emergency company to the company to t	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 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	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 Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for examples and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for electrons Type of electrical connection for auxiliary- and control current circuit Type of electrical connection for electrons Type of electrical connection for examples and control current circuit Type of electrical connection for examples and control current circuit Type of electrical connection for examples and control current circuit Type of electrical connection for examples and control current circuit Type of electrical connection for examples and control current circuit Type of electrical connection for examples and control current circuit Type of electr	Ambient temperature, upper operating limit	°C	60
Type of electrical connection for auxiliary- and control current 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 60947-43 Number of indicator lights Current possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Suitable for emergency stop Coordination class according to IEC 60947-43 No Class 2 Number of indicator lights No Coordination class according to IEC 60947-43 No Coordination class according to IEC	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 (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Substantial current circuit Screw connection Yes Ves No 0 0 0 0 0 0 0 0 0 0 0 0 0	Release class		CLASS 10
Rail mounting possible With transformer With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights Cuess 2 Number of indicator lights Cuess 2 Number of indicator lights Cuess 2 Number of indicator lights No 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 No	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 Cuss 2 Number of indicator lights Cuss 2 Number of indicator lights Cuss 2 Number of indicator lights No With fuse 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 No Supporting protocol for CAN 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 No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PR0FIBUS Supporting protocol for CAN Degree of protection (CAN) Degree of protection (CAN) Degree of protocol for CAN	Rail mounting possible		Yes
Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights Cuestoral 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 No	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 Class 2 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 Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN O O O O O O O O O O O O O	Suitable for emergency stop		No
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 No Supporting protocol for CAN	Coordination class according to IEC 60947-4-3		Class 2
With fuseNoDegree of protection (IP)IP20Degree of protection (NEMA)OtherSupporting protocol for TCP/IPNoSupporting protocol for PROFIBUSNoSupporting protocol for CANNo	Number of indicator lights		0
Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PR0FIBUS Supporting protocol for CAN No	External reset possible		No
Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Other No No	With fuse		No
Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN No No	Degree of protection (IP)		IP20
Supporting protocol for PROFIBUS Supporting protocol for CAN No	Degree of protection (NEMA)		Other
Supporting protocol for CAN No	Supporting protocol for TCP/IP		No
	Supporting protocol for PROFIBUS		No
Supporting protocol for INTERBUS 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
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 to 12 A		
IL03402006Z (AWA1210-2248) Reversing starter tp://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	