DATASHEET - MSC-R-25-M25(230V50HZ)/BBA



Reversing starter, 380 V 400 V 415 V: 11 kW, Ir= 20 - 25 A, 230 V 50 Hz, 240 V 60 Hz, AC voltage



Powering Business Worldwide

Part no. MSC-R-25-M25(230V50HZ)/BBA

Catalog No. 102995

Alternate Catalog XTSR025B025CFNL-A

No.

EL-Nummer 4315456

(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	Р	kW	11
Rated operational current			
AC-3			
380 V 400 V 415 V	l _e	Α	21.7
Rated short-circuit current 380 - 415 V	Iq	kA	50
Setting range			
Setting range of overload releases	I _r	Α	20 - 25
Coordination			Type of coordination "1" Type of coordination "2"
Contact sequence			M 3~
Actuating voltage			230 V 50 Hz, 240 V 60 Hz
Motor-protective circuit-breakers PKZM0-25			AC voltage
Contactor DILM25-01()			
DOL starter wiring set Mechanical connection element and electrical electric contact module PKZM0-	-XM32DE + DILN	//32-XRL	
Notes			
The reversing starter (complete units) consists of a PKZM0 motor protective cir	cuit breaker and	l two DILM	contactors.
These combinations are mounted on the busbar adapters.			
The connection of the main circuit between the motor protective circuit breake	r and the centee	tor is astab	liched with an electrical contact module

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

 Technical data PKZM0
 → PKZM0

 Accessories PKZ
 → 072896

 Technical data DILM
 → DILM

 Accessories DIL
 → 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	25
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	2.1
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 01459			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	25
Heat dissipation per pole, current-dependent	P_{vid}	W	5
Equipment heat dissipation, current-dependent	P_{vid}	W	15
Static heat dissipation, non-current-dependent	P_{vs}	W	2.1
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

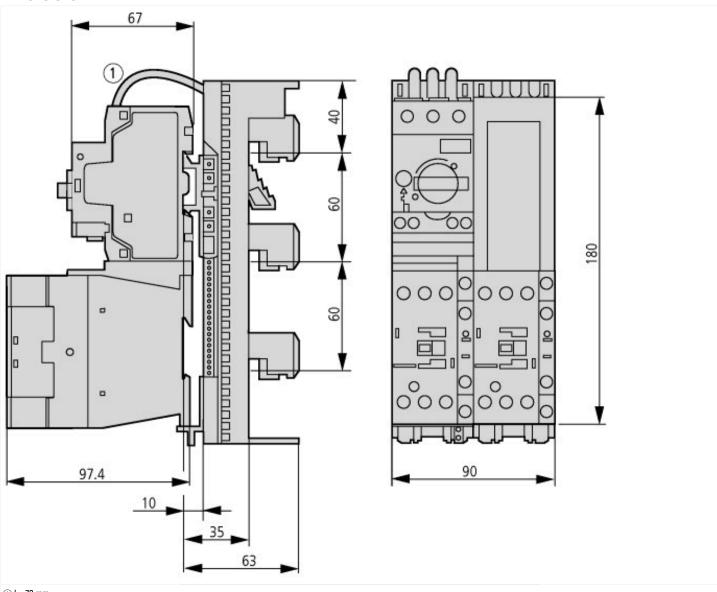
With short circuit releases Yes Related central supply-voltage Us at AC 50H/Z V 20 - 200 Related central supply-voltage Us at AC 50H/Z V 0 - 0 Willage Kype for exclusing W 5.5 Related operation power at AC 3, 200 Y, 3 phase WW 5.5 Related operation power at AC 3, 400 Y WW 11 Related power, 690 Y, 60 Hz, 3 phase WW 0 Related power, 650 Y, 60 Hz, 3 phase AW 2.7 Related power, 650 Y, 60 Hz, 3 phase AW 2.7 Related power, 650 Y, 60 Hz, 3 phase AW 2.7 Related operation current at AC -3, 400 Y A 2.2 Overload release current setting A 2.7 Related cenditional shart-circuit current, ype 1, 400 Y/27 Y A 0 Related cenditional shart-circuit current, ype 2, 500 Y A 500000 Related cenditional shart-circuit current, ype 2, 400 Y A 500000 Number of auxiliary contacts as normally open contact P 6 Related cenditional shart-circuit current, ype 2, 400 Y A 500000	[AJZ718013])	0,1	
Rated control supply violage Us at AC 59NZ	Kind of motor starter		Reversing starter
Rated control supply voltage Us at AC 68HZ V 0 - 0 Rated control supply voltage Us at DC V 0 - 0 Voltage type for actuating KW 5 Rated operation power at AC-3, 280 V.3 -phase kW 5 Rated operation power at AC-3, 480 V kW 0 Rated operation current E A 2.17 Rated operation current at AC-3, 400 V A 2.5 Rated operation current at AC-3, 400 V A 2.5 Voverload release current setting A 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, 240 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 Rated conditional short-circuit current, type 2, 400 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Rated conditional short-circuit current, type 2, 400 V A </td <td>With short-circuit release</td> <td></td> <td>Yes</td>	With short-circuit release		Yes
Rated control supply voltage Us at DC V 0 - 0 Voltage by pot for ectualing AC Rated operation power at AC-3.20 V, 3-phase kW 11 Rated power, 369 V, 60 Hz, 3-phase kW 0 Rated power, 379 V, 60 Hz, 3-phase kW 0 Rated power, 379 V, 60 Hz, 3-phase kW 0 Rated power, 379 V, 60 Hz, 3-phase kW 0 Rated operation current P A 2 17 Rated operation current S A 25 Rated conditional short-circuit current, typo 1, 480 Y/277 V A 0 Rated conditional short-circuit current, typo 2, 230 V A 0 Rated conditional short-circuit current, typo 2, 230 V A 50000 Rated conditional short-circuit current, typo 2, 240 V A 50000 Rated conditional short-circuit current, typo 2, 240 V A 50000 Rated conditional short-circuit current, typo 2, 240 V A 50000 Rated conditional short-circuit current, typo 2, 240 V A 50000 Rated conditional short-circuit current, typo 2, 240 V A 50000	Rated control supply voltage Us at AC 50HZ	V	230 - 230
Voltage type for actuating AC Rated operation power at AC-3, 200 V, 3-phase kW 1 Rated operation power at AC-3, 400 V kW 0 Rated power, 60 V, 60 Mr. 3-phase kW 0 Rated operation current te A 2.7 Rated operation current at AC-3, 400 V A 2.5 Overload release current setting A 2.0 Rated conditional short-circuit current, type 1, 480 V/277 V A 0 Rated conditional short-circuit current, type 1, 480 V/277 V A 0 Rated conditional short-circuit current, type 1, 480 V/277 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 clead contact C 60 Ambiest temperature, upper operating limit C 60 Release class C 60 Release class C 60 Release class C 60 Release class C 60	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated operation power at AC-3, 20 V. 3-phase kW 55 Rated power, 40 V. 60 Hz. 3-phase kW 10 Rated power, 57 V. 60 Hz. 3-phase kW 0 Rated operation current le A 21.7 Rated operation current at AC-3, 400 V A 25 Overload release current setting A 20 - 25 Rated conditional short-circuit current, type 1, 400 V/277 V A 0 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated conditional short-circuit current, type 2, 400 V A 500000 Rated condi	Rated control supply voltage Us at DC	V	0 - 0
Rated operation power at AC-3, 400 V KW 11 Rated operation current a KW 0 Rated power, 75 V, 80 Hz, 3-phase KW 0 Rated operation current a A 2 Rated operation current at AC-3, 400 V A 25 Overload release current setting A 0 Rated conditional short-circuit current, type 1, 480 Y/27 V A 0 Rated conditional short-circuit current, type 2, 500 V/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 Rated conditional short-circuit current, type 2, 400 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 Rated conditional short-circuit current, type 2, 400 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50 Release class A <th< td=""><td>Voltage type for actuating</td><td></td><td>AC</td></th<>	Voltage type for actuating		AC
Rated power, 60 V, 60 Hz, 3-phase kW 0 Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current le A 2.7 Rated operation current at AC-3, 400 V A 2.9 Overload release current setting A 0 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 400 V34 V A 0 Rated conditional short-circuit current, type 2, 400 V34 V A 0 Number of auxiliary contacts as normally closed contact B 0 Number of auxiliary contacts as normally closed contact C 0 Ambient temperature, upper operating limit C 0 Temperature compensated overload protection C 0 Type of electrical connection for auxiliary- and control current circuit C 0 Rall mounting possible Yes 0 With transformer Yes 0 Number of indicator lights C 0 Sultable for emergency stap Yes 0 Coordinational share-circuit current, t	Rated operation power at AC-3, 230 V, 3-phase	kW	5.5
Rated power, 575 V, 80 Hz, 3-phase kW 0 Rated operation current te A 21.7 Rated operation current at AC3, 400 V A 25 Overload release current setting A 0 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 1, 800 Y/347 V A 50000 Rated conditional short-circuit current, type 2, 400 V A 50000 Number of auxiliary contacts as normally open cortext 0 0 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit *C 86 Temperature compensated overload protection *C 64 Release class CASS 10 CASS 10 Type of electrical connection of main circuit *C 64 Release class CASS 10 CASS 10 With transformer No No With transformer No No Number of indicator lights *C Class 2 Coordination class a ccording to IEC 6947-4-3 No <td>Rated operation power at AC-3, 400 V</td> <td>kW</td> <td>11</td>	Rated operation power at AC-3, 400 V	kW	11
Rated operation current le A 217 Rated operation current a AC-3, 400 V A 25 Overload release current setting A 20 - 25 Rated conditional short-circuit current, type 1, 800 V/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 auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as normally closed contact VE 60 Temperature compensated overload protection Yes CLASS 10 Temperature compensated overload protection Yes CLASS 10 Type of electrical connection of main circuit Screw connection Yes With transformer No No Number of command positions Yes Class 2 Suitable for emergency stop No No Coordination class a coording to IEC 86947-4-3 No No Number of indicator lights Yes No	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3,400 V A 25 Overload release current setting A 20 - 25 Rated conditional short-circuit current, type 1,600 Y/347 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 2,400 V A 50000 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as normally closed contact C 60 Ambient temperature, upper operating limit *C 60 Temperature compensated overload protection 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 No With transformer Yes CLASS 10 No Number of command positions Yes No No Coordination class according to IEC 60947-43 Yes	Rated power, 575 V, 60 Hz, 3-phase	kW	0
Overfoad release current setting A 20 - 25 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 420 V A 500000 Rated conditional short-circuit current, type 2, 420 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 60 Temperature compensated overload protection CLASS 10 CLASS 10 Release class CLASS 10 Screw connection Yepe of electrical connection of main circuit Yes Screw connection Yepe of electrical connection of auxiliary- and control current circuit Yes Screw connection Rail mounting possible Yes No With transformer No No Number of command positions Yes Class 2 Suitable for emergency stop Class 2 Class 2 Number of indicator lights Yes No External reset possible No No <td>Rated operation current le</td> <td>Α</td> <td>21.7</td>	Rated operation current le	Α	21.7
Rated conditional short-circuit current, type 1, 800 Y/347 V A 0 Rated conditional short-circuit current, type 2, 230 V A 500000 Rated conditional short-circuit current, type 2, 2400 V A 500000 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 80 Temperature compensated overload protection Yes CLASS 10 Type of electrical connection of main circuit Screw connection Screw connection Type of electrical connection for auxiliary- and control current circuit Yes No Number of command positions Ves No Suitable for emergency stop No No Coordination class according to IEC 60947-4-3 No Class 2 Number of indicator lights No No External reset possible No No With fuse No No Degree of protection (IP) No No Degree of protection (NEMA) No No <	Rated operation current at AC-3, 400 V	Α	25
Rated conditional short-circuit current, type 1, 600 Y/347 V A 500000 Rated conditional short-circuit current, type 2, 230 V A 500000 Rumber of auxiliary contacts as normally open contact Number of auxiliary contacts as normally closed contact Number of electrical connection of main circuit No closes to closes to connection Number of command positions Number of command positions Number of command positions Number of indicator lights External reset possible No No No No No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TROFIBUS Supporting protocol for CAN Supporting protocol for CAN Supporting protocol for INTERBUS	Overload release current setting	Α	20 - 25
Rated conditional short-circuit current, type 2, 230 V Rated conditional short-circuit current, type 2, 400 V Rated conditional short-circuit current, type 2, 400 V Rumber of auxiliary contacts as normally open contact Rumber of auxiliary contacts as normally closed contact Rumber of compensated overload protection Rumber of contact on finan circuit Rumber of contact on finan circuit Rumber of command position of auxiliary- and control current circuit Rumber of command positions Rumber of command positions Rumber of command positions Rumber of indicator lights Rumbe	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 Begree of protection (IP) Degree of protection (INEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS	Rated conditional short-circuit current, type 1, 600 Y/347 V	Α	0
Number of auxiliary contacts as normally closed contact 0 Ambient temperature, upper operating limit °C 60 Temperature compensated overload protection Yes CLASS 10 Release class CLASS 10 Crew connection Type of electrical connection of main circuit Screw connection Yes Rail mounting possible Yes Screw connection With transformer No No Number of command positions O No Suitable for emergency stop Class 2 No Coordination class according to IEC 60947-4-3 Class 2 No Number of indicator lights No No External reset possible No No With fuse No No Degree of protection (IP) No No Degree of protection (IP) No No Degree of protection (NEMA) No No Supporting protocol for PROFIBUS No No Supporting protocol for PROFIBUS No No Supporting protocol for CAN No	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 0 Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Class 2 Number of indicator lights 0 External reset possible No With fuse No Degree of protection (IP) No Degree of protection (IP) PP00 Degree of protection (NEMA) Other Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for CAN No Supporting protocol for INTERBUS 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 Screw connection Rail mounting possible Yes With transformer No Number of command positions Yes Suitable for emergency stop No Coordination class according to IEC 60947-4-3 No Number of indicator lights Yes External reset possible No With fuse No Degree of protection (IP) No Degree of protection (NEMA) IP00 Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for INTERBUS No	Number of auxiliary contacts as normally open contact		0
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 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 Degree of protection (IP) 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 I	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 Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TCP/IP Supporting protocol for ROFIBUS Supporting protocol for CAN Supporting protocol for CAN Supporting protocol for LNEEBUS Supporting protocol for INTERBUS Supporting protocol fo	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 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 Screw connection Yes Screw connection Yes Screw connection Yes Yes No Other No Other No Supporting protocol for TCP/IP No No Supporting protocol for CAN No No No Supporting protocol for INTERBUS	Temperature compensated overload protection		Yes
Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for CAN Supporting protocol for INTERBUS Serw connection Yes Screw connection Yes Screw connection Yes Yes No No Other No Other No No Supporting protocol for PROFIBUS No No Supporting protocol for CAN No No Supporting protocol for INTERBUS	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 External reset possible With fuse No 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 Supporting protocol for INTERBUS No No No No No No No No No N	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 CAN Supporting protocol for CAN Supporting protocol for INTERBUS No No No No No No No No No N	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 INTERBUS Degree of protection (INTERBUS) O Class 2 No No No No No No Other 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 CAN Supporting protocol for CAN Supporting protocol for INTERBUS 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 CAN Supporting protocol for CAN Supporting protocol for INTERBUS No Class 2 Class 2 Class 2 No No No No No No No No No N	Number of command positions		0
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 PR0FIBUS Supporting protocol for CAN Supporting protocol for INTERBUS No Supporting protocol for INTERBUS	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 Supporting protocol for INTERBUS No Supporting protocol for INTERBUS No Supporting protocol for INTERBUS No	Coordination class according to IEC 60947-4-3		Class 2
With fuseNoDegree of protection (IP)IP00Degree of protection (NEMA)OtherSupporting protocol for TCP/IPNoSupporting protocol for PR0FIBUSNoSupporting protocol for CANNoSupporting protocol for INTERBUSNo	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 Supporting protocol for INTERBUS No Supporting protocol for INTERBUS	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	With fuse		No
Supporting protocol for TCP/IP Supporting protocol for PROFIBUS No Supporting protocol for CAN Supporting protocol for INTERBUS No	Degree of protection (IP)		IP00
Supporting protocol for PROFIBUS Supporting protocol for CAN Supporting protocol for INTERBUS No	Degree of protection (NEMA)		Other
Supporting protocol for CAN Supporting protocol for INTERBUS No	Supporting protocol for TCP/IP		No
Supporting protocol for INTERBUS No	Supporting protocol for PROFIBUS		No
	Supporting protocol for CAN		No
Supporting protocol for ASI No	Supporting protocol for INTERBUS		No
	Supporting protocol for ASI		No

Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Width	mm	90
Height	mm	200
Depth	mm	156

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



① I = 73 mm

MSC-R-...-M17[...32]BBA...

Assets (links)

Declaration of CE Conformity

00003118

Instruction Leaflets

IL03402006Z2018_04

Additional product information (links)

•		
IL03402006Z (AWA1210-2248) Reversing starter to 12 A		
IL03402006Z (AWA1210-2248) Reversing starter to 12 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402006Z2018_04.pdf	
IL03402015Z (AWA1210-2324) Busbar adapter		
IL03402015Z (AWA1210-2324) Busbar adapter	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402015Z2018_05.pdf	
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf	
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf	