## Specifications



Photo is representative





## Eaton 199114

Eaton Moeller® series Rapid Link - Reversing starter, 6.6 A, Sensor input 2, Actuator output 1, 180/207 V DC, AS-Interface®, S-7.A.E. for 62 modules, HAN Q4/2, with manual override switch

General specifications	
PRODUCT NAME	Eaton Rapid Link Reversing starter
CATALOG NUMBER	199114
EAN	4015081971725
PRODUCT LENGTH/DEPTH	120 mm
PRODUCT HEIGHT	270 mm
PRODUCT WIDTH	220 mm
PRODUCT WEIGHT	1.81 kg
CERTIFICATIONS	CE RoHS UL 60947-4-2 CCC IEC/EN 60947-4-2 UL approval UL 60947-4-2
CATALOG NOTES	Assigned motor rating: for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz
MODEL CODE	RAMO5-W211A32-412RS1



Features & Functions	
FEATURES	Parameterization: Keypad Parameterization: drivesConnect Parameterization: drivesConnect mobile (App) Diagnostics and reset on device and via AS-Interface
	Parameterization: Fieldbus
FITTED WITH:	Manual override switch Key switch position AUTO Key switch position OFF/RESET Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Electronic motor protection 1 Actuator output Thermo-click Key switch position HAND Thermistor monitoring PTC Short-circuit release
FUNCTIONS	For actuation of motors with mechanical brake External reset possible Temperature compensated overload protection

General	
CLASS	CLASS 10 A
DEGREE OF PROTECTION	NEMA 12 IP65
ELECTROMAGNETIC COMPATIBILITY	Class A
LIFESPAN, ELECTRICAL	10,000,000 Operations (at AC-3)
LIFESPAN, MECHANICAL	10,000,000 Operations (at AC-3)
MODEL	Reversing starter
OVERLOAD RELEASE CURRENT SETTING - MIN	0.3 A
OVERLOAD RELEASE CURRENT SETTING - MAX	6.6 A
OVERVOLTAGE CATEGORY	Ш
PRODUCT CATEGORY	Motor starter
PROTOCOL	AS-Interface profile cable: S-7.4 for 62 modules ASI
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4000 V
SYSTEM CONFIGURATION TYPE	AC voltage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.
ТҮРЕ	Reversing starter
VOLTAGE TYPE	DC

Ambient conditions, mechanical	
MOUNTING POSITION	Vertical
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half- sinusoidal shock 11 ms, 1000 shocks per shaft
VIBRATION	Resistance: 10 - 150 Hz, Oscillation frequency Resistance: According to IEC/EN 60068-2-6 Resistance: 6 Hz, Amplitude 0.15 mm Resistance: 57 Hz, Amplitude transition frequency on acceleration

Climatic environmental conditions	
ALTITUDE	Above 1000 m with 1 % performance reduction per 100 m Max. 1000 m Max. 2000 m
AMBIENT OPERATING TEMPERATURE - MIN	-10 °C
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
CLIMATIC PROOFING	In accordance with IEC/EN 50178 < 95 %, no condensation

0.3 - 6.6 A, motor, main circuit Adjustable, motor, main circuit
6.6 A (at 150 % Overload)
Maximum of one time every 60 seconds
380 - 480 V (-15 %/+10 %, at 50/60 Hz)
20 - 35 ms
20 - 35 ms
50/60 Hz
AC-53a
47 Hz
63 Hz
6.6 A
6.6 A
6.6 A
0.09 kW
3 kW
0 kW
3 kW
400 V AC, 3-phase 480 V AC, 3-phase
50/60 Hz, fLN, Main circuit
AC voltage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.

## Motor rating

ASSIGNED MOTOR
POWER AT 460/480 V, 60 3 HP
HZ, 3-PHASE

Braking function	
BRAKING CURRENT	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
BRAKING VOLTAGE	180/215 V DC -15 % / +10 %, Actuator for external motor brake

Short-circuit rating	
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	10 kA
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V	0 A
SHORT-CIRCUIT PROTECTION (EXTERNAL OUTPUT CIRCUITS)	Type 1 coordination via the power bus' feeder unit, Main circuit

Control circuit	
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
RATED CONTROL VOLTAGE (UC)	24 V DC (-15 %/+20 %, external via AS-Interface® plug) 180/207 V DC (external brake 50/60 Hz)

Communication	
CONNECTION	Connections pluggable in power section
INTERFACES	Specification: S-7.A.E. (AS-Interface®) Number of slave addresses: 62 (AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA

Contacts	
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1

Cable	
CABLE LENGTH	10 m, Radio interference level, maximum motor cable length

Design verification		Resources	
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.	to-ramo4-ap040081-en- us.pdf  eaton-rapid-link- generation-change-ra-sp- to-rasp5-ap040196-en- us.pdf  Electromagnetic compatibility (EMC)  eaton-rapid-link-5-rasp5- profinet-communication- ap040215-en-us.pdf  eaton-powerxl-da1-dc1- de1-internal-motor- protection-ap040016-en- us.pdf  eaton-rapid-link- generation-change-ra-sp- to-rasp4-ap040080-en- us.pdf  eaton-rapid-link-5- configuration-rockwell-pl- ap040195-en-us.pdf  eaton-powerxl-da1-dc1- db1-de1-rapidlink5- firmware-update- ap040214-en-us.pdf  eaton-rapid-link- generation-change-ramo- to-ramo5-ap040198-en- us.pdf  eaton-rapid-link- generation-change-ramo- to-ramo5-ap040198-en- us.pdf  eaton-rapid-link-	generation-change-ra-mo- to-ramo4-ap040081-en- us.pdf
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.		generation-change-ra-sp- to-rasp5-ap040196-en-
10.2.3.3 RESIST. OF			
INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.		eaton-rapid-link-5-rasp5- profinet-communication- ap040215-en-us.pdf
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.		de1-internal-motor-
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.		us.pdf eaton-rapid-link-
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.		<u>to-rasp4-ap040080-en-</u>
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.		configuration-rockwell-plc-
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.		eaton-powerxl-da1-dc1-
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.		<u>firmware-update-</u>
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.		generation-change-ramo4- to-ramo5-ap040198-en-
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	ls the panel builder's responsibility.		·
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.		The state of the s
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.		stick-3-ap040190-en-
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.	BROCHURES	eaton-powerxl-variable- frequency-drives-material-
10.9.4 TESTING OF ENCLOSURES MADE OF	Is the panel builder's responsibility.		handling-brochure- br040017en-en-us.pdf

INSULATING MATERIAL			
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.		

	eaton-rapid-link-5- brochure-br040014en-en- us.pdf
	Product Range Catalog Drives Engineering
CATALOGUES	eaton-rapid-link-5-drive- system-catalog- ca040002en-en-us
	DA-DC-00003964.pdf
DECLARATIONS OF	DA-DC-00004523.pdf
CONFORMITY	DA-DC-00004184.pdf
	DA-DC-00004525.pdf
DRAWINGS	eaton-bus-adapter- rapidlink-reversing-starter- dimensions-003.eps eaton-bus-adapter-
	rapidlink-reversing-starter- dimensions-002.eps
ECAD MODEL	ETN.RAMO5-W211A32- 412RS1.edz
INSTALLATION INSTRUCTIONS	<u>IL034084ZU</u>
INSTALLATION VIDEOS	Rapid Link 5
	ramo5_v12.dwg
MCAD MODEL	ramo5 v12.stp
SOFTWARE, FIRMWARE, AND APPLICATIONS	eaton-rapidlink5-firmware- release-note-mz034006en- us.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	



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