## Specifications



Photo is representative





## Eaton 199108

Eaton Moeller® series Rapid Link - Reversing starter, 6.6 A, Sensor input 2, 180/207 V DC, AS-Interface®, S-7.A.E. for 62 modules, HAN Q5, with manual override switch

General specifications	
PRODUCT NAME	Eaton Rapid Link
	Reversing starter
CATALOG NUMBER	199108
EAN	4015081971664
PRODUCT LENGTH/DEPTH	120 mm
PRODUCT HEIGHT	270 mm
PRODUCT WIDTH	220 mm
PRODUCT WEIGHT	1.8 kg
CERTIFICATIONS	CCC UL 60947-4-2 CE IEC/EN 60947-4-2 RoHS 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-W201A32-512RS1



Features & Functions	
FEATURES	Parameterization: Keypad Diagnostics and reset on device and via AS-Interface
	Parameterization: Fieldbus
	Parameterization: drivesConnect mobile (App) Parameterization: drivesConnect
FITTED WITH:	Thermistor monitoring PTC Key switch position AUTO Thermo-click Key switch position OFF/RESET Key switch position HAND Manual override switch Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Electronic motor protection 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	Phase-earthed AC supply systems are not permitted. AC voltage Center-point earthed star network (TN-S network)
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: 57 Hz, Amplitude transition frequency on acceleration Resistance: 10 - 150 Hz, Oscillation frequency Resistance: According to IEC/EN 60068-2-6 Resistance: 6 Hz, Amplitude 0.15 mm

Climatic environmental conditions	
ALTITUDE	Max. 1000 m Max. 2000 m Above 1000 m with 1 % performance reduction per 100 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	< 95 %, no condensation In accordance with IEC/EN 50178

Main circuit	
CURRENT LIMITATION	Adjustable, motor, main circuit 0.3 - 6.6 A, motor, main circuit
INPUT CURRENT	6.6 A (at 150 % Overload)
MAINS SWITCH-ON FREQUENCY	Maximum of one time every 60 seconds
MAINS VOLTAGE TOLERANCE	380 - 480 V (-15 %/+10 %, at 50/60 Hz)
OFF-DELAY	20 - 35 ms
ON-DELAY	20 - 35 ms
OUTPUT FREQUENCY	50/60 Hz
OVERLOAD CYCLE	AC-53a
RATED FREQUENCY - MIN	47 Hz
RATED FREQUENCY - MAX	63 Hz
RATED OPERATIONAL CURRENT (IE)	6.6 A
RATED OPERATIONAL CURRENT (IE) AT 150% OVERLOAD	6.6 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	6.6 A
RATED OPERATIONAL POWER AT 380/400 V, 50 HZ - MIN	0.09 kW
RATED OPERATIONAL POWER AT 380/400 V, 50 HZ - MAX	3 kW
RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ	0 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	3 kW
RATED OPERATIONAL VOLTAGE	400 V AC, 3-phase 480 V AC, 3-phase
SUPPLY FREQUENCY	50/60 Hz, fLN, Main circuit
SYSTEM CONFIGURATION TYPE	Phase-earthed AC supply systems are not permitted. AC voltage Center-point earthed star

network (TN-S network)

## 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	Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA Specification: S-7.A.E. (AS-Interface®) Number of slave addresses: 62 (AS-Interface®)

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

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.	configuration-ro- ap040195-en-us. eaton-rapid-link- generation-chan to-ramo4-ap040 us.pdf  Electromagnetic compatibility (EM eaton-rapid-link- generation-chan to-ramo5-ap040 us.pdf  eaton-rapid-link- generation-chan to-rasp5-ap0401 us.pdf  eaton-rapid-link- profinet-commu ap040215-en-us.  APPLICATION NOTES  APPLICATION NOTES  APPLICATION NOTES  eaton-powerxl-d db1-de1-rapidlinf- firmware-update ap040214-en-us. eaton-rapid-link- update-rasp4-ap en-us.pdf  eaton-rapid-link- generation-chan to-rasp4-ap0400 us.pdf  eaton-rapid-link- generation-chan to-rasp5-ap0401 us.pdf  eaton-powerxl-d de1-internal-mon protection-ap040 us.pdf  eaton-powerxl-d de1-internal-mon protection-ap040 us.pdf	eaton-rapid-link-5- configuration-rockwell-plc-
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.		eaton-rapid-link- generation-change-ra-mo-
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.		to-ramo4-ap040081-en- us.pdf
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.		compatibility (EMC)  eaton-rapid-link- generation-change-ramo4- to-ramo5-ap040198-en- us.pdf
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.		eaton-rapid-link- generation-change-ra-sp- to-rasp5-ap040196-en-
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.		us.pdf  eaton-rapid-link-5-rasp5- profinet-communication-
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.		ap040215-en-us.pdf eaton-powerxl-da1-dc1-
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.		firmware-update- ap040214-en-us.pdf
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.		eaton-rapid-link-firmware- update-rasp4-ap040219-
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.		eaton-rapid-link-
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.		generation-change-ra-sp- to-rasp4-ap040080-en- us.pdf
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.		eaton-rapid-link- generation-change-rasp4- to-rasp5-ap040197-en-
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	ls the panel builder's responsibility.		us.pdr eaton-powerxl-da1-dc1- de1-internal-motor-
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.		protection-ap040016-en- us.pdf
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.		eaton-powerxl-dx-com- stick-3-ap040190-en- us.pdf
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.	BROCHURES	eaton-rapid-link-5- brochure-br040014en-en-
10.9.4 TESTING OF ENCLOSURES MADE OF	ls the panel builder's responsibility.		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-powerxl-variable- frequency-drives-material- handling-brochure- br040017en-en-us.pdf
CATALOGUES	eaton-rapid-link-5-drive- system-catalog- ca040002en-en-us  Product Range Catalog Drives Engineering
DECLARATIONS OF CONFORMITY	DA-DC-00004525.pdf  DA-DC-00004184.pdf  DA-DC-00004523.pdf  DA-DC-00003964.pdf
DRAWINGS	eaton-bus-adapter- rapidlink-reversing-starter- dimensions-002.eps  eaton-bus-adapter- rapidlink-reversing-starter- dimensions-003.eps
ECAD MODEL	ETN.RAMO5-W201A32- 512RS1.edz
INSTALLATION INSTRUCTIONS	<u>IL034084ZU</u>
INSTALLATION VIDEOS	Rapid Link 5
MCAD MODEL	ramo5 v10.stp
SOFTWARE, FIRMWARE, AND APPLICATIONS	eaton-rapidlink5-firmware- release-note-mz034006en- us.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	



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