

Specifications



Photo is representative



Eaton 199102

Eaton Moeller® series Rapid Link - Reversing starter, 6.6 A, Sensor input 2, 400/480 V AC, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2, with manual override switch

General specifications

PRODUCT NAME	Eaton Rapid Link Reversing starter
CATALOG NUMBER	199102
EAN	4015081971602
PRODUCT LENGTH/DEPTH	120 mm
PRODUCT HEIGHT	270 mm
PRODUCT WIDTH	220 mm
PRODUCT WEIGHT	1.8 kg
CERTIFICATIONS	CE RoHS CCC UL 60947-4-2 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-W204A31-412RS1

Features & Functions

FEATURES

Parameterization: Keypad
Parameterization: Fieldbus

Parameterization:
drivesConnect
Parameterization:
drivesConnect mobile
(App)
Diagnostics and reset on
device and via AS-Interface

FITTED WITH:

Two sensor inputs through
M12 sockets (max. 150
mA) for quick stop and
interlocked manual
operation
Electronic motor
protection
Thermistor monitoring
PTC
Key switch position AUTO
Key switch position
OFF/RESET
Key switch position HAND
Manual override switch
Thermo-click
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** III

PRODUCT CATEGORY Motor starter

PROTOCOL AS-Interface profile cable:
S-7.4 for 31 modules
ASI

**RATED IMPULSE
WITHSTAND VOLTAGE
(UIMP)** 4000 V

**SYSTEM
CONFIGURATION TYPE** AC voltage
Phase-earthed AC supply
systems are not
permitted.
Center-point earthed star
network (TN-S network)

TYPE 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: 6 Hz, Amplitude 0.15 mm Resistance: According to IEC/EN 60068-2-6 Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: 10 - 150 Hz, Oscillation frequency

Climatic environmental conditions

ALTITUDE	Max. 2000 m Max. 1000 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	In accordance with IEC/EN 50178 < 95 %, no condensation

Main circuit

CURRENT LIMITATION	0.3 - 6.6 A, motor, main circuit Adjustable, 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	480 V AC, 3-phase 400 V AC, 3-phase
SUPPLY FREQUENCY	50/60 Hz, fLN, Main circuit
SYSTEM CONFIGURATION TYPE	AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)

Motor rating

ASSIGNED MOTOR

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

Braking function

BRAKING CURRENT	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
BRAKING VOLTAGE	400/480 V AC -15 % / +10 %, Actuator for external motor brake

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) 400/480 V AC (external brake 50/60 Hz)
-----------------------------------	--

Contacts

NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
--	---

NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
--	---

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
--	--

Communication

CONNECTION	Connections pluggable in power section
-------------------	--

INTERFACES	Specification: S-7.4 (AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA Number of slave addresses: 31 (AS-Interface®)
-------------------	---

Cable

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

Design verification

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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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.

10.9.2 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 Is the panel builder's responsibility.

Resources

[eaton-rapid-link-generation-change-ra-mo-to-ramo4-ap040081-en-us.pdf](#)

[eaton-rapid-link-generation-change-ra-sp-to-rasp5-ap040196-en-us.pdf](#)

[eaton-powerxl-da1-dc1-db1-de1-rapidlink5-firmware-update-ap040214-en-us.pdf](#)

[eaton-rapid-link-5-configuration-rockwell-plc-ap040195-en-us.pdf](#)

[eaton-rapid-link-generation-change-ra-sp-to-rasp4-ap040080-en-us.pdf](#)

[eaton-rapid-link-generation-change-ramo4-to-ramo5-ap040198-en-us.pdf](#)

[eaton-powerxl-da1-dc1-de1-internal-motor-protection-ap040016-en-us.pdf](#)

[eaton-rapid-link-5-rasp5-profinet-communication-ap040215-en-us.pdf](#)

[eaton-powerxl-dx-com-stick-3-ap040190-en-us.pdf](#)

[eaton-rapid-link-generation-change-rasp4-to-rasp5-ap040197-en-us.pdf](#)

[Electromagnetic compatibility \(EMC\)](#)

[eaton-rapid-link-firmware-update-rasp4-ap040219-en-us.pdf](#)

[eaton-rapid-link-5-brochure-br040014en-en-us.pdf](#)

APPLICATION NOTES

BROCHURES

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-00004523.pdf](#)

[DA-DC-00003964.pdf](#)

[DA-DC-00004184.pdf](#)

DRAWINGS

[eaton-bus-adapter-rapidlink-reversing-starter-dimensions-003.eps](#)

[eaton-bus-adapter-rapidlink-reversing-starter-dimensions-002.eps](#)

ECAD MODEL

[ETN.RAMO5-W204A31-412RS1.edz](#)

INSTALLATION INSTRUCTIONS

[IL034084ZU](#)

INSTALLATION VIDEOS

[Rapid Link 5](#)

MCAD MODEL

[ramo5_v11.dwg](#)

[ramo5_v11.stp](#)

SOFTWARE, FIRMWARE, AND APPLICATIONS

[eaton-rapidlink5-firmware-release-note-mz034006en-us.pdf](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



Eaton Corporation plc

Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

