Specifications

# Eaton 199104



## Catalog Number: 199104

Eaton Moeller® series Rapid Link - Reversing starter, 6.6 A, Sensor input 2, Actuator output 1, 180/207 V DC, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2, with manual override switch

## General specifications

**Product Name**
Eaton Moeller® series Rapid Link
Reversing starter

**Catalog Number**
199104

**EAN**
4015081971626

**Product Length/Depth**
120 mm

**Product Height**
270 mm

**Product Width**
220 mm

**Product Weight**
1.81 kg

**Certifications**
IEC/EN 60947-4-2
RoHS
UL 60947-4-2
UL approval
CE
CCC

**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

Powering Business Worldwide

## Product specifications

### Type

Reversing starter

### Features

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

### 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.

### 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.

## Resources

### Application notes

Generation Change RASP4 to RASP5

Connecting drives to generator supplies

Configuration to Rockwell PLC for Rapid Link

Generation change RAMO4 to RAMO5

Generation change from RA-SP to RASP 4.0

Generation Change RA-SP to RASP5

Generation change from RA-MO to RAMO 4.0

Electromagnetic compatibility (EMC)

### Brochures

eaton-powerxl-variable-frequency-drives-material-handling-brochure-br040017en-en-us.pdf

eaton-rapid-link-5-brochure-br040014en-en-us.pdf

DA-SW-drivesConnect

### Catalogs

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

eaton-bus-adapter-rapidlink-speed-controller-dimensions-003.eps

eaton-bus-adapter-rapidlink-speed-controller-dimensions-002.eps

### eCAD model

ETN.RAMO5-W211A31-412RS1.edz

### Installation instructions

IL034084ZU

### Installation videos

Rapid Link 5

### Manuals and user guides

MN040003_EN

### mCAD model

### 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 insulating material

Is the panel builder's responsibility.

### Fitted with:

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

### Class

CLASS 10 A

### Lifespan, electrical

10,000,000 Operations (at AC-3)

### Climatic proofing

ramo5_v12.dwg

ramo5_v12.stp

In accordance with IEC/EN 50178

< 95 %, no condensation

### Rated impulse withstand voltage (Uimp)

4000 V

### Model

Reversing starter

### Altitude

Max. 1000 m

Above 1000 m with 1 % performance reduction per 100 m

Max. 2000 m

### Lifespan, mechanical

10,000,000 Operations (at AC-3)

### Mains switch-on frequency

Maximum of one time every 60 seconds

### Electrical connection type of main circuit

Plug-in connection

### Mains voltage tolerance

380 - 480 V (-15 %/+10 %, at 50/60 Hz)

### Voltage type

DC

### Mounting position

Vertical

### Rated conditional short-circuit current (Iq)

10 kA

### Overvoltage category

III

### Connection

Connections pluggable in power section

### Off-delay

20 - 35 ms

### Functions

For actuation of motors with mechanical brake

External reset possible

Temperature compensated overload protection

### On-delay

20 - 35 ms

### System configuration type

AC voltage

Center-point earthed star network (TN-S network)

Phase-earthed AC supply systems are not permitted.

### Braking current

≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake

### Electromagnetic compatibility

Class A

### Current limitation

0.3 - 6.6 A, motor, main circuit

Adjustable, motor, main circuit

### Output frequency

50/60 Hz

### Braking voltage

180/215 V DC -15 % / +10 %, Actuator for external motor brake

### Overload cycle

AC-53a

### Overload release current setting - min

0.3 A

### Rated conditional short-circuit current (Iq), type 2, 230 V

0 A

### Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V

0 A

### Rated conditional short-circuit current, type 1, 480 Y/277 V

10000 A

### Rated conditional short-circuit current, type 1, 600 Y/347 V

0 A

### Rated control supply voltage (Us) at AC, 50 Hz - max

0 V

### Rated control supply voltage (Us) at AC, 50 Hz - min

0 V

### Rated control supply voltage (Us) at AC, 60 Hz - max

0 V

### Rated control supply voltage (Us) at AC, 60 Hz - min

0 V

### Rated control supply voltage (Us) at DC - max

0 V

### Rated control supply voltage (Us) at DC - min

0 V

### Rated frequency - max

63 Hz

### Rated frequency - min

47 Hz

### 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

### Shock resistance

15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half-sinusoidal shock 11 ms, 1000 shocks per shaft

### Interfaces

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

### Protocol

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

### Rated control voltage (Uc)

180/207 V DC (external brake 50/60 Hz)
24 V DC (-15 %/+20 %, external via AS-Interface® plug)

### Supply frequency

50/60 Hz, fLN, Main circuit

### Rated operational current (Ie)

6.6 A

### Rated operational power at 380/400 V, 50 Hz - max

3 kW

### Rated operational power at 380/400 V, 50 Hz - min

0.09 kW

### Rated operational voltage

400 V AC, 3-phase
480 V AC, 3-phase

### Short-circuit protection (external output circuits)

Type 1 coordination via the power bus' feeder unit, Main circuit

### Vibration

Resistance: 6 Hz, Amplitude 0.15 mm
Resistance: 10 - 150 Hz, Oscillation frequency
Resistance: 57 Hz, Amplitude transition frequency on

acceleration

Resistance: According to IEC/EN 60068-2-6

### Ambient operating temperature - max

55 °C

### Ambient operating temperature - min

-10 °C

### Ambient storage temperature - max

70 °C

### Ambient storage temperature - min

-40 °C

### Assigned motor power at 460/480 V, 60 Hz, 3-phase

3 HP

### Number of auxiliary contacts (normally closed contacts)

0

### Number of auxiliary contacts (normally open contacts)

1

### Number of command positions

2

### Number of pilot lights

0

### Overload release current setting - max

6.6 A

### 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 power at 460 V, 60 Hz, 3-phase

2.238 kW

### Rated power at 575 V, 60 Hz, 3-phase

0 kW

### Product category

Motor starter

### Cable length

10 m, Radio interference level, maximum motor cable length

### Coordination class (IEC 60947-4-3)

Class 1

### Degree of protection

IP65

NEMA 12

### Electrical connection type for auxiliary- and control-current circuit

Plug-in connection

### Input current

6.6 A (at 150 % Overload)

### Power consumption

8 W

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