Specifications

Eaton 199106



Catalog Number: 199106

Eaton Moeller® series Rapid Link - Reversing starter, 6.6 A, Sensor input 2, Actuator output 1, 400/480 V AC, 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
199106

EAN
4015081971640

Product Length/Depth
120 mm

Product Height
270 mm

Product Width
220 mm

Product Weight
1.81 kg

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

Powering Business Worldwide

Product specifications

Type

Reversing starter

Features

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

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

Electromagnetic compatibility (EMC)

Generation change from RA-MO to RAMO 4.0

Configuration to Rockwell PLC for Rapid Link

Generation Change RA-SP to RASP5

Connecting drives to generator supplies

Generation change RAMO4 to RAMO5

Generation change from RA-SP to RASP 4.0

Generation Change RASP4 to RASP5

Brochures

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

eaton-powerxl-variable-frequency-drives-material-handling-brochure-br040017en-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-00004523.pdf

DA-DC-00003964.pdf

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

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

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

eCAD model

ETN.RAMO5-W214A31-412RS1.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:

Thermo-click
Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation
1 Actuator output
Manual override switch
Thermistor monitoring PTC
Key switch position HAND
Key switch position AUTO
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.stp

ramo5_v12.dwg

In accordance with IEC/EN 50178

< 95 %, no condensation

Rated impulse withstand voltage (Uimp)

4000 V

Model

Reversing starter

Altitude

Above 1000 m with 1 % performance reduction per 100 m

Max. 2000 m

Max. 1000 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

Phase-earthed AC supply systems are not permitted.

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

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

400/480 V AC -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
Specification: S-7.4 (AS-Interface®)
Number of slave addresses: 31 (AS-Interface®)

Protocol

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

Rated control voltage (Uc)

24 V DC (-15 %/+20 %, external via AS-Interface® plug)
400/480 V AC (external brake 50/60 Hz)

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: According to IEC/EN 60068-2-6
Resistance: 10 - 150 Hz, Oscillation frequency

Resistance: 57 Hz, Amplitude transition frequency on acceleration

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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