

# Specifications

Photo is representative

## Eaton 198525

Eaton Moeller® series Rapid Link - DOL starter, 6.6 A, Sensor input 2, 400/480 V AC, AS-Interface®, S-7.A.E. for 62 modules, HAN Q5

### General specifications

<b>PRODUCT NAME</b>	Eaton Rapid Link DOL starter
<b>CATALOG NUMBER</b>	198525
<b>EAN</b>	4015081964000
<b>PRODUCT LENGTH/DEPTH</b>	120 mm
<b>PRODUCT HEIGHT</b>	270 mm
<b>PRODUCT WIDTH</b>	220 mm
<b>PRODUCT WEIGHT</b>	1.63 kg
<b>CERTIFICATIONS</b>	RoHS CE CCC UL 60947-4-2 UL approval IEC/EN 60947-4-2 UL 60947-4-2
<b>CATALOG NOTES</b>	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
<b>MODEL CODE</b>	RAMO5-D204A32-5120S1

## Features & Functions

### FEATURES

Parameterization: Keypad  
Diagnostics and reset on  
device and via AS-Interface

Parameterization:  
drivesConnect  
Parameterization: Fieldbus

Parameterization:  
drivesConnect mobile  
(App)

### FITTED WITH:

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

### FUNCTIONS

External reset possible  
For actuation of motors  
with mechanical brake  
Temperature  
compensated overload  
protection

## General

**CLASS** CLASS 10 A

**DEGREE OF PROTECTION** IP65  
NEMA 12

**ELECTROMAGNETIC  
COMPATIBILITY** Class A

**LIFESPAN, ELECTRICAL** 10,000,000 Operations (at  
AC-3)

**LIFESPAN, MECHANICAL** 10,000,000 Operations (at  
AC-3)

**MODEL** Direct 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 62 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** DOL starter

**VOLTAGE TYPE** DC

## Ambient conditions, mechanical

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

## Climatic environmental conditions

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

## Main circuit

<b>CURRENT LIMITATION</b>	0.3 - 6.6 A, motor, main circuit Adjustable, motor, main circuit
<b>INPUT CURRENT</b>	6.6 A (at 150 % Overload)
<b>MAINS SWITCH-ON FREQUENCY</b>	Maximum of one time every 60 seconds
<b>MAINS VOLTAGE TOLERANCE</b>	380 - 480 V (-15 %/+10 %, at 50/60 Hz)
<b>OFF-DELAY</b>	20 - 35 ms
<b>ON-DELAY</b>	20 - 35 ms
<b>OUTPUT FREQUENCY</b>	50/60 Hz
<b>OVERLOAD CYCLE</b>	AC-53a
<b>RATED FREQUENCY - MIN</b>	47 Hz
<b>RATED FREQUENCY - MAX</b>	63 Hz
<b>RATED OPERATIONAL CURRENT (IE)</b>	6.6 A
<b>RATED OPERATIONAL CURRENT (IE) AT 150% OVERLOAD</b>	6.6 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	6.6 A
<b>RATED OPERATIONAL POWER AT 380/400 V, 50 HZ - MIN</b>	0.09 kW
<b>RATED OPERATIONAL POWER AT 380/400 V, 50 HZ - MAX</b>	3 kW
<b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>	0 kW
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	3 kW
<b>RATED OPERATIONAL VOLTAGE</b>	400 V AC, 3-phase 480 V AC, 3-phase
<b>SUPPLY FREQUENCY</b>	50/60 Hz, fLN, Main circuit
<b>SYSTEM CONFIGURATION TYPE</b>	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

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

## Control circuit

<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	0 V
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	0 V
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	0 V
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	0 V
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>	0 V
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<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	0 V
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<b>RATED CONTROL VOLTAGE (UC)</b>	24 V DC (-15 %/+20 %, external via AS-Interface® plug) 400/480 V AC (external brake 50/60 Hz)
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## Contacts

<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
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<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	0
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## Short-circuit rating

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

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

<b>CABLE LENGTH</b>	10 m, Radio interference level, maximum motor cable length
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## 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-sp-to-rasp5-ap040196-en-us.pdf](#)

[eaton-rapid-link-generation-change-ra-mo-to-ramo4-ap040081-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-firmware-update-rasp4-ap040219-en-us.pdf](#)

## APPLICATION NOTES

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

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

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

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

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

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

## BROCHURES

[eaton-powerxl-variable-frequency-drives-material-handling-brochure-br040017en-en-us.pdf](#)

INSULATING MATERIAL	
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

	<a href="#">eaton-rapid-link-5-brochure-br040014en-en-us.pdf</a>
<b>CATALOGUES</b>	<a href="#">Product Range Catalog Drives Engineering</a> <a href="#">eaton-rapid-link-5-drive-system-catalog-ca040002en-en-us</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-00004184.pdf</a> <a href="#">DA-DC-00004523.pdf</a> <a href="#">DA-DC-00003964.pdf</a> <a href="#">DA-DC-00004525.pdf</a>
<b>DRAWINGS</b>	<a href="#">eaton-bus-adapter-rapidlink-reversing-starter-dimensions.eps</a> <a href="#">eaton-bus-adapter-rapidlink-reversing-starter-dimensions-002.eps</a>
<b>ECAD MODEL</b>	<a href="#">ETN.RAMO5-D204A32-5120S1.edz</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">IL034084ZU</a>
<b>INSTALLATION VIDEOS</b>	<a href="#">Rapid Link 5</a>
<b>MANUALS AND USER GUIDES</b>	<a href="#">eaton-rapid-link-5-mn034004en-us.pdf</a>
<b>MCAD MODEL</b>	<a href="#">ramo5_v1.stp</a> <a href="#">ramo5_v1.dwg</a>
<b>SOFTWARE, FIRMWARE, AND APPLICATIONS</b>	<a href="#">eaton-rapidlink5-firmware-release-note-mz034006en-us.pdf</a>

<b>PROJECT NAME:</b>
<b>PROJECT NUMBER:</b>
<b>PREPARED BY:</b>
<b>DATE:</b>



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