Speed controllers, 2.4 A, 0.75 kW, Sensor input 4, 230/277 V AC, AS-Interface \$, S-7.4 for 31 modules, HAN Q4/2, with manual override switch, STO (Safe Torque Off)



Part no. RASP5-2402A31-412R010S1 198754

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Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-2402A31-412R010S1
EAN Product Locath (Posth	4015081968121
Product Length/Depth	157 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.59 kilogram
Certifications	RoHS
Product Tradename	Rapid Link
Product Type	Speed controller
Product Sub Type	None
Catalog Notes	3 fixed speeds and 1 potentiometer speed can be switched over from U/f to (vector) speed control Connection of supply voltage via adapter cable on round or flexible busbar junc Diagnostics and reset on device and via AS-Interface integrated PTC thermistor monitoring and Thermoclick with safe isolation optional: 4 sensor inputs with M12-Y adapter for switchover to creep speed optional: Faster stop if external 24 V fails Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation with AUTO - OFF/RESET - HAND key switches with selector switch REV - OFF - FWD
Features	Diagnostics and reset on device and via AS-Interface Parameterization: Keypad Parameterization: drivesConnect mobile (App) Parameterization: Fieldbus Parameterization: drivesConnect
Fitted with:	Key switch position HAND Manual override switch Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation PTC thermistor monitoring Selector switch (Positions: REV - OFF - FWD) PC connection Key switch position AUTO Thermo-click with safe isolation Internal DC link Key switch position OFF/RESET Control unit IGBT inverter
Functions	For actuation of motors with mechanical brake 3 fixed speeds 1 potentiometer speed STO (Safe Torque Off)
Degree of protection	IP65 NEMA 12
Electromagnetic compatibility	1st and 2nd environments (according to EN 61800-3)
Overvoltage category	III
Product category	Speed controller
Protocol	AS-Interface profile cable: S-7.4 for 31 modules ASI
Radio interference class	C1: for conducted emissions only C2, C3: depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be necessary.

System configuration type	Center-point earthed star network (TN-S network) AC voltage Phase-earthed AC supply systems are not permitted.
Mounting position	Vertical
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half-sinusoidal shock ms, 1000 shocks per shaft
Vibration	Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: According to IEC/EN 60068-2-6 Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 6 Hz, Amplitude 0.15 mm
Altitude	Max. 2000 m Above 1000 m with 1 % performance reduction per 100 m
Ambient operating temperature - min	-10 °C
Ambient operating temperature - max	40 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C
Climatic proofing	In accordance with IEC/EN 50178 < 95 %, no condensation
Current limitation	Adjustable, motor, main circuit 0.2 - 2.4 A, motor, main circuit
Delay time	< 10 ms, Off-delay < 10 ms, On-delay
Efficiency	97 % (η)
Heat dissipation at current/speed	27.5 W at 50% current and 90% speed 31.8 W at 100% current and 90% speed 33.5 W at 25% current and 50% speed 34.6 W at 50% current and 50% speed 35.1 W at 25% current and 0% speed 36.6 W at 100% current and 50% speed 36.8 W at 50% current and 0% speed 40.7 W at 100% current and 0% speed
Input current ILN at 150% overload	2.5 A
Leakage current at ground IPE - max	3.5 mA
Mains current distortion	120 %
Mains switch-on frequency	Maximum of one time every 60 seconds
Mains voltage - max	480 V
Mains voltage - min	380 V
Mains voltage tolerance Operating mode	380 - 480 V (-10 %/+10 %, at 50/60 Hz) Synchronous reluctance motors Sensorless vector control (SLV) BLDC motors PM and LSPM motors U/f control
Output frequency - max	500 Hz
Output frequency - min	0 Hz
Overload current	For 60 s every 600 s At 40 °C
Overload current IL at 150% overload	3.6 A
Rated frequency - max	66 Hz
Rated frequency - min	45 Hz
Rated operational current (Ie)	2.4 A at 150% overload (at an operating frequency of 8 kHz and an ambient air temperature of +40 $^{\circ}\text{C})$
Rated operational power at 380/400 V, 50 Hz, 3-phase	0.75 kW
Rated operational voltage	400 V AC, 3-phase 480 V AC, 3-phase
Resolution	0.1 Hz (Frequency resolution, setpoint value)
Starting current - max	200 %, IH, max. starting current (High Overload), For 2 seconds every 20 second Power section
Supply frequency	50/60 Hz
Switching frequency	8 kHz, 4 - 32 kHz adjustable, fPWM, Power section, Main circuit
Assigned motor power at 460/480 V, 60 Hz, 3-phase	1 HP

Co.S.A. Imms. & Nat. TXX mest, Act assets for exchannel motion brake Parking prompt P		
Braking voltage 220277 V AC -15 % / = 10 %, Acustor for external motor brake 220277 V AC -15 % / = 10 %, Acustor for external motor brake 304 - 10 NA 304 - 10 VA 304 - 10 VA 304 - 10 VA 304 - 10 VA 305 - 1	•	
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Type 1 coordination via the power bus' feeder unit, Main circuit Pated control voltage (Uc) 24 V DC. (15 %).29 %, caternal via AS - Interface® plug) 22027 V AC Internal brake 5080 Rat		
Rated control voltage (Uc) 24 V D C -15 %/20 %, external via AS-Interface plug 230277 V AC (oxternal brake \$0000 Hz) Communication interface AS-Interface Plug type: HAN 04/2 Specification: S-7.4 (AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 Vr. 190 mA. Number of sleve addressee: 31 (AS-Interface®) Cable length C2 S m, maximum motor cable length C1 S m, maximum motor cable length C3 S m, maximum motor cable length C4 S m, maximum motor cable length C4 S m, maximum motor cable length C4 S m, maximum motor cable length C5 S m, maximum motor cable length C6 S m,	Rated conditional short-circuit current (Iq)	10 kA
Communication interface Connection Interfaces Connection Connectio	Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Communication interface Connection Interfaces Connection Connectio		
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	10.13 Mechanical function	

Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Frequency converter =< 1 kV (EC001857)

Electric engineering, automation, process control engineering / Electrical drive / Static frequency converter / Static frequency converter = < 1 kV (ecl@ss10.0.1-27-02-31-01 [AKE177014]) ٧ 380 - 480 Mains voltage Mains frequency 50/60 Hz Number of phases input 3 3 Number of phases output 500 Max. output frequency Hz ٧ 500 Max. output voltage Nominal output current I2N 2.4 Max. output at quadratic load at rated output voltage kW 0.75 Max. output at linear load at rated output voltage kW 0.75

	.,	
Relative symmetric net frequency tolerance	%	10
Relative symmetric net voltage tolerance	%	10
Number of analogue outputs		0
Number of analogue inputs		0
Number of digital outputs		0
Number of digital inputs		4
With control element		Yes
Application in industrial area permitted		Yes
Application in domestic- and commercial area permitted		Yes
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		Yes
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for BACnet		No
Supporting protocol for other bus systems		No
Number of HW-interfaces industrial Ethernet		0
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		1
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces other		1
With optical interface		No
With PC connection		Yes
Integrated breaking resistance		No
4-quadrant operation possible		No
Type of converter		U converter
Degree of protection (IP)		IP65
Degree of protection (NEMA)		12
Height	mm	270
Width	mm	220
Depth	mm	157