Speed controller, 8.5 A, 4 kW, Sensor input 4, AS-Interface $^{\circledR}$, S-7.4 for 31 modules, HAN Q5, with manual override switch, with braking resistance, with fan



Part no. RASP5-8400A31-512R101S1 198587

Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-8400A31-512R101S1
EAN	4015081964628
Product Length/Depth	195 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.78 kilogram
Certifications	CE UL 61800-5-1 IEC/EN 61800-5-1 RoHS UL approval
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 junction 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
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Features	Parameterization: Fieldbus Diagnostics and reset on device and via AS-Interface Internal, temperature-controlled Fan Parameterization: drivesConnect mobile (App) Parameterization: Keypad Parameterization: drivesConnect
Fitted with:	Control unit Fan Thermo-click with safe isolation Manual override switch Key switch position HAND Selector switch (Positions: REV - OFF - FWD) IGBT inverter Key switch position AUTO Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Internal DC link PC connection Key switch position OFF/RESET Breaking resistance Braking resistance PTC thermistor monitoring
Functions	3 fixed speeds 1 potentiometer speed 4-quadrant operation possible Brake chopper with braking resistance for dynamic braking
Degree of protection	NEMA 12 IP65
Electromagnetic compatibility	1st and 2nd environments (according to EN 61800-3)
Overvoltage category	III
Product category	Speed controller
Protocol	ASI AS-Interface profile cable: S-7.4 for 31 modules

Radio interference class	C2, C3: depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be necessary. C1: for conducted emissions only
Rated impulse withstand voltage (Uimp)	2000 V
System configuration type	Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network) AC voltage
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: According to IEC/EN 60068-2-6 Resistance: 6 Hz, Amplitude 0.15 mm Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 57 Hz, Amplitude transition frequency on acceleration
Altitude	Above 1000 m with 1 % performance reduction per 100 m Max. 2000 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
Delay time	0.8 - 8.5 A, motor, main circuit < 10 ms, Off-delay < 10 ms, On-delay
Efficiency	98 % (η)
Heat dissipation at current/speed	51.6 W at 25% current and 0% speed 53.8 W at 25% current and 50% speed 60.9 W at 50% current and 0% speed 64 W at 50% current and 90% speed 65.4 W at 50% current and 50% speed 85.1 W at 100% current and 0% speed 94 W at 100% current and 50% speed 95.3 W at 100% current and 90% speed
Input current ILN at 150% overload	7.8 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	380 - 480 V (-10 %/+10 %, at 50/60 Hz)
Operating mode	Sensorless vector control (SLV) PM and LSPM motors U/f control Synchronous reluctance motors BLDC motors
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	12.7 A
Rated frequency - max	66 Hz
Rated frequency - min	45 Hz
Rated operational current (le)	8.5 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	4 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 seconds, Power section
Supply frequency	50/60 Hz

Cable length Rett the product standard's requirements. Meets the product standard sequirements. Meets the product standard sequiremen	Switching frequency	8 kHz, 4 - 32 kHz adjustable, fPWM, Power section, Main circuit
Braining totrque Switch-on threshold for the braining transistor Switch-on threshold for the braining transistor Rated conditional short-circuit current [Iq] Rated conditional short-circuit current [Iq] Rated conditional short-circuit protection (external output circuits) Pipe 1 coordination via the power bus 'feeder unit, Main circuit Rated control voltage (IUc) Communication interface Communication interface Rated control voltage (IUc) Communication interface Pipu type HAN 05 Interfaces Pipu type HAN 05 Interfaces Sweditication, S-7.4 [AS Interfaces) Mac both protect consumption from AS-Interfaces Power supply unit [39 V]: 100 m/A Calle length C	Assigned motor power at 460/480 V, 60 Hz, 3-phase	5 HP
Braining totrque Switch-on threshold for the braining transistor Switch-on threshold for the braining transistor Rated conditional short-circuit current [Iq] Rated conditional short-circuit current [Iq] Rated conditional short-circuit protection (external output circuits) Pipe 1 coordination via the power bus 'feeder unit, Main circuit Rated control voltage (IUc) Communication interface Communication interface Rated control voltage (IUc) Communication interface Pipu type HAN 05 Interfaces Pipu type HAN 05 Interfaces Sweditication, S-7.4 [AS Interfaces) Mac both protect consumption from AS-Interfaces Power supply unit [39 V]: 100 m/A Calle length C	Dealing courses	COSA (may SA for 120 ms). Actuator for outcome limited hards
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Rated conditional shart-circuit current [lq) Rated control voltage (Uc) Pope 1 conditional shart-circuit protection (external output circuits) Rated control voltage (Uc) Communication interface Connection Communication interface Connection Communication interface Connection Interfaces Connection Cashe length C		
Short-circuit protection (external output circuits) Rated control voltage (Uc) Communication interface Commection Interfaces Interfaces Interfaces Commection Interfaces Interfac	Switch-on threshold for the braking transistor	765 V DC
Rated control voltage (Uc) Communication interface Connection Plug type: HAN 05 Specification: S-74 (AS-interface®) plug) Max. total power consumption from AS-Interface®) mover supply unit (30 V): 190 mover supp	Rated conditional short-circuit current (Iq)	10 kA
Communication interface Connection Connection Interfaces Connection Interfaces Specifications S-14 (AS-Interface®) Number of slave addresses-31 (AS-Interface®) Max. total power consumption from AS-Interface®) Max. total power consumption from AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA Cable length C1 ≤ 1 m, maximum motor cable length C3 ≤ 25 m, maximum motor cable length C3 ≤ 30 m, maximum motor cable length C3 ≤ 40 m, maximum motor cable length C3 ≤ 50 m, maximum mo	Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Connection Interfaces	Rated control voltage (Uc)	24 V DC (-15 %/+20 %, external via AS-Interface® plug)
Connection Interfaces	Communication interface	AS Interface
Interfaces Specification: S-7.4 (AS-Interface®) Number of slave addresses: 31 (AS-Interface®) power supply unit (30 V): 190 mA. Number of slave addresses: 31 (AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface®) power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface® power supply unit (30 V): 190 mA. Visit power consumption from AS-Interface® power supply unit (30 V): 190 mA. Visit power supply unit (40 V		
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	10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
	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])				
Mains voltage	V	380 - 480		
Mains frequency		50/60 Hz		
Number of phases input		3		
Number of phases output		3		
Max. output frequency	Hz	500		
Max. output voltage	V	500		

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Supporting protocol for RNX <	Supporting protocol for CAN		No
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