

## Eaton 198560

Eaton Moeller® series Rapid Link - Speed controller, 4.3 A, 1.5 kW, Sensor input 4, AS-Interface®, S-7.4 for 31 modules, HAN Q5, with manual override switch

<b>PRODUCT NAME</b>	Eaton Rapid Link Speed controller
<b>CATALOG NUMBER</b>	198560
<b>PRODUCT LENGTH/DEPTH</b>	157 mm
<b>PRODUCT HEIGHT</b>	270 mm
<b>PRODUCT WIDTH</b>	220 mm
<b>PRODUCT WEIGHT</b>	3.58 kg
<b>CERTIFICATIONS</b>	UL approval RoHS UL 61800-5-1 CE IEC/EN 61800-5-1
<b>CATALOG NOTES</b>	<ul style="list-style-type: none"><li>• 3 fixed speeds and 1 potentiometer speed</li><li>• can be switched over from U/f to (vector) speed control</li><li>• Connection of supply voltage via adapter cable on round or flexible busbar junction</li><li>• Diagnostics and reset on device and via AS-Interface</li><li>• integrated PTC thermistor monitoring and Thermoclick with safe isolation</li><li>• optional: 4 sensor inputs with M12-Y adapter for</li></ul>

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

<b>FEATURES</b>	Parameterization: Keypad Diagnostics and reset on device and via AS-Interface
	Parameterization: drivesConnect
	Parameterization: Fieldbus
	Parameterization: drivesConnect mobile (App)
<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.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to

<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-00004184.pdf</a>
	<a href="#">DA-DC-00003964.pdf</a>
<b>ECAD MODEL</b>	<a href="#">ETN.RASP5-4400A31-512R000S1.edz</a>
<b>MCAD MODEL</b>	<a href="#">rasp5_v20.stp</a>
	<a href="#">ramo5_v20.dwg</a>
	<a href="#">eaton-powerxl-speed-control-unit-as-interface-rasp5-il034085zu.pdf</a>
	<a href="#">eaton-rapid-link-5-brochure-br040014en-en-us.pdf</a>
	<a href="#">eaton-powerxl-variable-frequency-drives-material-handling-brochure-br040017en-en-us.pdf</a>
	<a href="#">eaton-rapid-link-5-mn034004en-us.pdf</a>
	<a href="#">eaton-bus-adapter-rapidlink-speed-controller-dimensions-003.eps</a>
	<a href="#">eaton-bus-adapter-rapidlink-speed-controller-dimensions-005.eps</a>
	<a href="#">eaton-bus-adapter-rapidlink-speed-controller-dimensions-002.eps</a>
	<a href="#">eaton-bus-adapter-rapidlink-speed-controller-dimensions-004.eps</a>

	be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>FITTED WITH:</b>	Manual override switch Key switch position AUTO IGBT inverter Key switch position HAND Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Selector switch (Positions: REV - OFF - FWD) PC connection Key switch position OFF/RESET Control unit PTC thermistor monitoring  Thermo-click with safe isolation Internal DC link
<b>CLIMATIC PROOFING</b>	< 95 %, no condensation

	In accordance with IEC/EN 50178
<b>OPERATING MODE</b>	U/f control BLDC motors Synchronous reluctance motors PM and LSPM motors Sensorless vector control (SLV)
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	2000 V
<b>ALTITUDE</b>	Above 1000 m with 1 % performance reduction per 100 m Max. 2000 m
<b>APPLICATION IN DOMESTIC AND COMMERCIAL AREA PERMITTED</b>	Yes
<b>MAINS SWITCH-ON FREQUENCY</b>	Maximum of one time every 60 seconds
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-10 °C
<b>MAINS VOLTAGE - MAX</b>	480 V
<b>OUTPUT VOLTAGE - MAX</b>	500 V
<b>RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE</b>	10 %
<b>RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE</b>	10 %
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	70 °C
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>APPLICATION IN INDUSTRIAL AREA PERMITTED</b>	Yes
<b>MAINS VOLTAGE TOLERANCE</b>	380 - 480 V (-10 %/+10 %, at 50/60 Hz)
<b>PRODUCT CATEGORY</b>	Speed controller
<b>PROTECTION</b>	Finger and back-of-hand proof, Protection against direct contact (BGV A3, VBG4)
<b>RESOLUTION</b>	0.1 Hz (Frequency

	resolution, setpoint value)
<b>MOUNTING POSITION</b>	Vertical
<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)</b>	10 kA
<b>OVERVOLTAGE CATEGORY</b>	III
<b>COMMUNICATION INTERFACE</b>	AS-Interface
<b>CONNECTION</b>	Plug type: HAN Q5
<b>CONVERTER TYPE</b>	U converter
<b>DEGREE OF PROTECTION</b>	IP65 NEMA 12
<b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>	2 HP
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	0 W
<b>INPUT CURRENT ILN AT 150% OVERLOAD</b>	4.1 A
<b>MAINS CURRENT DISTORTION</b>	120 %
<b>PROTOCOL</b>	ASI AS-Interface profile cable: S-7.4 for 31 modules
<b>OVERLOAD CURRENT</b>	For 60 s every 600 s At 40 °C
<b>OVERLOAD CURRENT IL AT 150% OVERLOAD</b>	6.5 A
<b>RATED FREQUENCY - MAX</b>	66 Hz
<b>RATED FREQUENCY - MIN</b>	45 Hz
<b>RATED OPERATIONAL POWER AT 380/400 V, 50 HZ, 3-PHASE</b>	0.75 kW
<b>ASSIGNED MOTOR CURRENT IM AT 400 V, 50 HZ, 150% OVERLOAD</b>	4.3 A
<b>ASSIGNED MOTOR CURRENT IM AT 440 - 480 V, 60 HZ, 150% OVERLOAD</b>	4.3 A
<b>SYSTEM CONFIGURATION TYPE</b>	AC voltage Center-point earthed star network (TN-S network)

	Phase-earthed AC supply systems are not permitted.
<b>BRAKING CURRENT</b>	$\leq 0.6$ A (max. 6 A for 120 ms), Actuator for external motor brake
<b>ELECTROMAGNETIC COMPATIBILITY</b>	1st and 2nd environments (according to EN 61800-3)
<b>CURRENT LIMITATION</b>	0.4 - 4.3 A, motor, main circuit Adjustable, motor, main circuit
<b>BRAKING TORQUE</b>	Adjustable to 100 % (I/I <sub>e</sub> ), DC - Main circuit
<b>CABLE LENGTH</b>	C1 $\leq 1$ m, maximum motor cable length C3 $\leq 25$ m, maximum motor cable length C2 $\leq 5$ m, maximum motor cable length
<b>FUNCTIONS</b>	1 potentiometer speed 3 fixed speeds
<b>DELAY TIME</b>	< 10 ms, Off-delay < 10 ms, On-delay
<b>NUMBER OF INPUTS (ANALOG)</b>	0
<b>NUMBER OF INPUTS (DIGITAL)</b>	4
<b>RADIO INTERFERENCE CLASS</b>	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
<b>NUMBER OF OUTPUTS (DIGITAL)</b>	0
<b>STARTING CURRENT - MAX</b>	200 %, I <sub>H</sub> , max. starting current (High Overload), For 2 seconds every 20 seconds, Power section
<b>NUMBER OF PHASES (INPUT)</b>	3
<b>NUMBER OF PHASES (OUTPUT)</b>	3
<b>POWER CONSUMPTION</b>	46 W
<b>INTERFACES</b>	Specification: S-7.4 (AS-

	Interface®) Number of slave addresses: 31 (AS- Interface®) Max. total power consumption from AS- Interface® power supply unit (30 V): 190 mA
<b>EFFICIENCY</b>	98 % ( $\eta$ )
<b>RATED CONTROL VOLTAGE (UC)</b>	24 V DC (-15 %/+20 %, external via AS-Interface® plug)
<b>SUPPLY FREQUENCY</b>	50/60 Hz
<b>LEAKAGE CURRENT AT GROUND IPE - MAX</b>	3.5 mA
<b>MAINS VOLTAGE - MIN</b>	380 V
<b>NOMINAL OUTPUT CURRENT I2N</b>	4.3 A
<b>NUMBER OF HW- INTERFACES (INDUSTRIAL ETHERNET)</b>	0
<b>NUMBER OF HW- INTERFACES (OTHER)</b>	1
<b>NUMBER OF HW- INTERFACES (PARALLEL)</b>	0
<b>NUMBER OF HW- INTERFACES (RS-232)</b>	0
<b>NUMBER OF HW- INTERFACES (RS-422)</b>	0
<b>NUMBER OF HW- INTERFACES (RS-485)</b>	1
<b>NUMBER OF HW- INTERFACES (SERIAL TTY)</b>	0
<b>NUMBER OF HW- INTERFACES (USB)</b>	0
<b>NUMBER OF INTERFACES (PROFINET)</b>	0
<b>NUMBER OF OUTPUTS (ANALOG)</b>	0
<b>OUTPUT AT LINEAR LOAD AT RATED OUTPUT VOLTAGE - MAX</b>	1.5 kW
<b>OUTPUT AT QUADRATIC LOAD AT RATED OUTPUT VOLTAGE - MAX</b>	1.5 kW
<b>OUTPUT FREQUENCY - MAX</b>	500 Hz
<b>OUTPUT FREQUENCY -</b>	0 Hz



MIN	
<b>SHORT-CIRCUIT PROTECTION (EXTERNAL OUTPUT CIRCUITS)</b>	Type 1 coordination via the power bus' feeder unit, Main circuit
<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>SWITCHING FREQUENCY</b>	8 kHz, 4 - 32 kHz adjustable, fPWM, Power section, Main circuit
<b>RATED OPERATIONAL CURRENT (IE)</b>	4.3 A at 150% overload (at an operating frequency of 8 kHz and an ambient air temperature of +40 °C)
<b>RATED OPERATIONAL VOLTAGE</b>	480 V AC, 3-phase 400 V AC, 3-phase
<b>VIBRATION</b>	Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: According to IEC/EN 60068-2-6 Resistance: 6 Hz, Amplitude 0.15 mm
<b>HEAT DISSIPATION AT CURRENT/SPEED</b>	32.3 W at 25% current and 0% speed 33.2 W at 25% current and 50% speed 35.2 W at 50% current and 90% speed 36.2 W at 50% current and 0% speed 37.6 W at 50% current and 50% speed 46.3 W at 100% current and 90% speed 48.7 W at 100% current and 0% speed 48.7 W at 100% current and 50% speed

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



Eaton House  
30 Pembroke Road  
Dublin 4,  
Eaton.com

© 2025

Follow us on social media to get the latest product and support information.

