Speed controllers, 4.3 A, 1.5 kW, Sensor input 4, 400/480 V AC, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2, with braking resistance



Part no.

RASP5-4404A31-4120100S1 198771

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Product Sub Type Anno Datalog Nores Can be switched over from UPT to leach of speed control of connection of speed voltage via adapter cable on round of reliable bushar junctic Diagnostics and reset on device role wink as 1-interface integrated PTC humits or mostaring and Thermoelishe bushar junctic Diagnostics and reset on device role wink as 1-interface integrated PTC humits or mostaring and Thermoelishe bushar junctic Diagnostics and reset on device and via AS-Interface Features Image: Add PTC humits or mostaring and Thermoelishe bushar junctic provide and paration of external 24 Viaits Features Image: Add PTC humits or mostaring and Thermoelishe bushar junctic with address or store parent with AUTO - OFF/REST - IAADO Synake Imax. 150 mAI for quick stop and interfaced admains (Rev. OFF - NOV) Parameterization: Feddbase Parameterization: feedbase Parameterization: fe	Product Tradename	Rapid Link
Catalog Notes can be switched over from U/H to (vector) speed control Catalog Notes can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison can be switched over from U/H to (vector) speed control Comparison comparison can be switched over from U/H to (vector) speed control Comparison comparison comparison comparison Comparison comparison comparison comparison Factor comparison comparison comparison Factor comparison comparison comparison	Product Type	Speed controller
Fractions Connection of supply voltage Addition and Texture busbar junction optional: 4 sensor indust with AdV: addition option option options indust options adV: advite addition option options with AdV: addition option option options with AdV: addition option option options advite addition option option options advite addition option option option advite addition option option advite additin advite addition option advite addition option advit	Product Sub Type	None
Interesting Parameterization: Fieldbush Fitted with: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: Parameterization: Paramet	Catalog Notes	Connection of supply voltage via adapter cable on round or flexible busbar junctio Diagnostics and reset on device and via AS-Interface Four fixed speeds 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
Interesting Parameterization: Fieldbush Fitted with: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: CriwesConnect mobile (App) Parameterization: Parameterization: Parameterization: Paramet		
Key switch position OF/RESET Selector switch (Position: KEY - OFF - FWD) Breaking resistance Rey switch position AND Thermo-click with safe isolation Four fixed seeds PC connection IGET inverter Rey switch position AUTO Brraing resistance PTC thermistrer Handing resistance for dynamic braking equadrant operation possible Brake choperer with mechanical brake 4-quadrant operation possible Brake choperer with possible Brake choperer with possible Brake choperer with mechanical brake 4-quadrant operation possible Brake choperer with mechanical brake 4-quadrant operation possible Brake choperer with mechanical brake 4-quadrant operation possible Brake choperer with possible Brake choperer with mechanical brake 4-quadrant operation possible Brake choperer with possible Brake choperer with possible Brake choperer with mechanical brake 4-quadrant operation pos	Features	Parameterization: Fieldbus Parameterization: Keypad Parameterization: drivesConnect mobile (App)
Image: Protection 4-quadrant operation possible Brake chopper with braking resistance for dynamic braking Degree of protection Image: Protection Degree of protection Image: Protection Overvoltage category Image: Protection Product category Image: Protection Protocol Speed controller Protocol Speed controller Radio interference class Conduct demissions only C2, C3: depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be green suppression filters (optional) may be	Fitted with:	interlocked manual operation Key switch position OFF/RESET Selector switch (Positions: REV - OFF - FWD) Breaking resistance Key switch position HAND Thermo-click with safe isolation Four fixed speeds PC connection IGBT inverter Key switch position AUTO Braking resistance PTC thermistor monitoring Control unit
IP65 Electromagnetic compatibility IF65 Overvoltage category Ist 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 C1: for conducted emissions only C2, C3: depending on the motor cable length, the connected load, and ambient ornditions. External radio interference suppression filters (optional) may be encessary.	Functions	4-quadrant operation possible
Overvoltage category III Product category Speed controller Protocol ASI AS-Interface profile cable: S-7.4 for 31 modules 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.	Degree of protection	
Overvoltage category III Product category Speed controller Protocol ASI AS-Interface profile cable: S-7.4 for 31 modules 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.	Electromagnetic compatibility	1st and 2nd environments (according to EN 61800-3)
Product category Speed controller Protocol ASI AS-Interface profile cable: S-7.4 for 31 modules Radio interference class C1: for conducted emissions only c2, C3: depending on the motor cable length, the connected load, and ambient necessary.		-
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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.		ASI
Rated impulse withstand voltage (Uimp) 2000 V	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
	Rated impulse withstand voltage (Uimp)	2000 V

System configuration type	AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)
Mounting position	Vertical
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half-sinusoidal shock 11
Vibration	Resistance: 6 Hz, Amplitude 0.15 mm Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: According to IEC/EN 60068-2-6
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 0.4 - 4.3 A, motor, main circuit
Delay time	< 10 ms, Off-delay < 10 ms, On-delay
Efficiency	98 % (ŋ)
Heat dissipation at current/speed	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
Input current ILN at 150% overload	4.1 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) U/f control BLDC motors Sensorless vector control (SLV) PM and LSPM motors Synchronous reluctance motors
Output frequency - max	500 Hz
Output frequency - min	0 Hz
Overload current	At 40 °C For 60 s every 600 s
Overload current IL at 150% overload	6.5 A
Rated frequency - max	66 Hz
Rated frequency - min	45 Hz
Rated operational current (le)	4.3 A at 150% overload (at an operating frequency of 8 kHz and an ambient air temperature of +40 $^{\circ}\mathrm{C})$
Rated operational power at 380/400 V, 50 Hz, 3-phase	1.5 kW
Rated operational voltage	480 V AC, 3-phase 400 V AC, 3-phase
Resolution Starting current - max	0.1 Hz (Frequency resolution, setpoint value) 200 %, IH, max. starting current (High Overload), For 2 seconds every 20 seconds, 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	2 HP

Braking current	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
Braking torque	Adjustable to 100 % (I/Ie), DC - Main circuit
	\leq 30 % (I/Ie)
Braking voltage	400/480 V AC -15 % / +10 %, Actuator for external motor brake
Switch-on threshold for the braking transistor	765 V DC
Rated conditional short-circuit current (Iq)	10 kA
Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Rated control voltage (Uc)	400/480 V AC (external brake 50/60 Hz) 24 V DC (-15 %/+20 %, external via AS-Interface® plug)
Communication interface	AS-Interface
Connection	
Interfaces	Plug type: HAN 04/2 Specification: S-7.4 (AS-Interface®)
Intendees	Number of slave addresses: 31 (AS-Interface®)
	Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA
Cable length	C2 ≤ 5 m, maximum motor cable length
	$C3 \le 25$ m, maximum motor cable length $C1 \le 1$ m, maximum motor cable length
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 insulating material	Is the panel builder's responsibility.
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.

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	٧	/	380 - 480	
Mains frequency			50/60 Hz	
Number of phases input			3	
Number of phases output			3	
Max. output frequency	H	Ηz	500	
Max. output voltage	١	/	500	
Nominal output current I2N	A	4	4.3	
Max. output at quadratic load at rated output voltage	k	W	1.5	

Max. output at linear load at rated output voltage	kW	1.5
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
		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		
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		Yes
4-quadrant operation possible		Yes
Type of converter		U converter
Degree of protection (IP)		IP65
Degree of protection (NEMA)		12
Height	mm	270
Width	mm	220
Depth	mm	157