Speed controllers, 2.4 A, 0.75 kW, Sensor input 4, 180/207 V DC, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2, with braking resistance



Part no. RASP5-2401A31-4120100S1 198733

Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-2401A31-4120100S1
EAN	4015081967919
Product Length/Depth	157 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.42 kilogram
Certifications	RoHS UL approval IEC/EN 61800-5-1 CE UL 61800-5-1
Product Tradename	Rapid Link
Product Type	Speed controller
Product Sub Type	None
Catalog Notes	can be switched over from U/f to (vector) speed control 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 with selector switch REV - OFF - FWD
Features	Parameterization: Keypad Parameterization: drivesConnect mobile (App) Parameterization: drivesConnect Parameterization: Fieldbus Diagnostics and reset on device and via AS-Interface
Fitted with:	Key switch position OFF/RESET Key switch position HAND PTC thermistor monitoring Breaking resistance Internal DC link Braking resistance PC connection IGBT inverter Key switch position AUTO Four fixed speeds Control unit Selector switch (Positions: REV - OFF - FWD) Thermo-click with safe isolation Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation
Functions	For actuation of motors with mechanical brake 4-quadrant operation possible Brake chopper with braking resistance for dynamic braking
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
1100001	ASI
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

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 ms, 1000 shocks per shaft
Vibration	Resistance: According to IEC/EN 60068-2-6 Resistance: 6 Hz, Amplitude 0.15 mm Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: 10 - 150 Hz, Oscillation frequency
Altitude	Above 1000 m with 1 % performance reduction per 100 m
Ambient operating temperature - min	Max. 2000 m -10 °C
Ambient operating temperature - max	40 °C
Ambient storage temperature - min	-40 °C
	70 °C
Ambient storage temperature - max	
Climatic proofing	< 95 %, no condensation In accordance with IEC/EN 50178
Current limitation	0.2 - 2.4 A, motor, main circuit
	Adjustable, 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	380 - 480 V (-10 %/+10 %, at 50/60 Hz)
Operating mode	Sensorless vector control (SLV) U/f control PM and LSPM motors BLDC 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	3.6 A
Rated frequency - max	66 Hz
Rated frequency - min	45 Hz
Rated operational current (le)	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

Mumber of slave addresses: 31 (AS-Interface®) Cable length Cable lengt	Braking current	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
Switch-on-breshold for the braking transistor Rated conditional abort-direct current (tq) Short-circuit protection (external coupt circuits) Rated common voltage (Uc) Rated common voltage (Uc) Rated common voltage (Uc) Rated common voltage (Uc) AS-Interface Communication interface Common Plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Interfaces Max. total power containment on a AS-Interface® (Pulg) Interfaces Rated common Plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Interfaces Rated common Plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Rated plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Rated plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Rated plug type: RAN 042 Specifications 7.3 r4 AS-Interface®) Rated plug type: RAN 042 Cable length Cable	Braking torque	
Rated conditional short-circuit current (lo) Short-circuit protection (external output circuits) Page 1 coordination via the power bus "feeder unit, Main circuit Type 1 coordination via the power bus "feeder unit, Main circuit Rated control voltage (Uc) Rated control voltage (Braking voltage	280/207 V DC -15 $\%$ / +10 $\%$, Actuator for external motor brake
Short-circuit protection (external output circuits) Rated control voltage (Uc) Rated control voltage (Uc) AS-Interface AS-Interface Communication interface Pulsy type: HAND QV2 Specification: \$3.74 AS-Interface@) Mach untal power consumption from AS-Interface@) Mach untal power consumption from AS-Interface@) Cable length Ca	Switch-on threshold for the braking transistor	765 V DC
Reted control voltage (Uc) 24 V DC-15 %/-20 %, external via AS-interface® plug 180/207 V DC (texternal brake 50/00 Hz) Communication interface AS-interface Plug type: HANI Ok/2 Specification: 57-37 (AS-interface®) power supply unit (30 V): 15 m/A (Number of large and prover consumption from AS-interface®) was returned as a specification of the specification o	Rated conditional short-circuit current (Iq)	10 kA
Communication interface Connection AS-Interface Connection Plug type: HAN 04/2 Specification: 5-7 A (AS-Interface®) Max. total power consumption from AS-Interface®) Cable length C2 5 5 m. maximum motor cable length C2 5 5 m. maximum motor cable length C3 5 28 m. maximum motor cable length C4 6 28 m. maximu	Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Cemestion Interfaces Plug type: HAN Q4/2 Specifications: S-74 (AS-Interface®) Max total power consumption from AS-Interface®) power supply unit (30 V): 15 m, and not prover consumption from AS-Interface®) Cable length Cable length Cable length Cable length Case and case and creates and case	Rated control voltage (Uc)	
Interfaces Specification: S-7.4 (AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 Vir. 18 AA AA Number of slave addresses: 31 (AS-Interface®)	Communication interface	AS-Interface
Max. total power consumption from AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power supply unit (30 V): 1st AA Number of slave addresses: 31 (AS-interface@ power slave) unit power slave addresses: 31	Connection	Plug type: HAN Q4/2
C2 ≤ 5 m, maximum motor cable length C3 ≤ 25 m, maximum motor cable length C4 sequences	Interfaces	Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA
10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Meets the product standard's requirements. 10.2.6 Meets the product standard's requirements. 10.2.6 Meets no product standard's requirements. 10.2.7 Inscriptions 10.2.6 Meets no product standard's requirements. 10.3.0 Dees not apply, since the entire switchgear needs to be evaluated. 10.2.7 Inscriptions 10.3.0 Dees not apply, since the entire switchgear needs to be evaluated. 10.4.1 Clearances and creepage distances 10.5.1 Protection against electric shock 10.6.1 Incorporation of switching devices and components 10.7.1 Internal electrical circuits and connections 10.7.1 Internal electrical circuits and connections 10.7.2 Power-frequency electric strength 10.9.2 Power-frequency electric strength 10.9.3 The panel builder's responsibility. 10.9.4 Testing of enclosures made of insulating material 10.9.4 Testing of enclosures made of insulating material 10.1 Temperature rise 10.1 Short-circuit rating 10.1 Short-circuit rating 10.2 Short-circuit rating 10.3 Meets the product standard's requirements. 10.4 Short-circuit rating 10.5 Short-circuit rating 10.6 Short-circuit rating 10.7 Internal electrical circuits and connections 10.8 Short-circuit rating 10.9 Short-circuit rating 10.9 Short-circuit rating 10.9 Short-circuit rating 10.9 Short-circuit rating 10.1 Short-circuit rating 10.1 Short-circuit rating 10.2 Short-circuit rating 10.3 Meets the product standard's requirements. 10.4 Short-circuit rating 10.5 Short-circuit rating 10.6 Short-circuit rating 10.7 Short-circuit rating 10.8 Short-circuit rating 10.9 Sho	Cable length	C2 ≤ 5 m, maximum motor cable length
10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.7 Internal electrical circuits and connections 10.7 Internal electrical circuits and connections 10.9 Power-frequency electric strength 10.9.1 Temperature rise 10.9 Temperature rise 10.1 Short-circuit rating 10.2 Mechanical function 10.3 Mechanical function 10.4 Meets the product standard's requirements. 10.5 Product standard's requirements. 10.6 Does not apply, since the entire switchgear needs to be evaluated. 10.6 Incorporation of switching devices and components 10.8 Connections for external conductors 10.8 The panel builder's responsibility. 10.9 Power-frequency electric strength 10.9 In panel builder's responsibility. 10.9 In panel builder's responsibility. 10.9 The panel builder's responsibility. 10.9 The panel builder's responsibility. 10.9 In panel builder's res	10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Meets the product standard's requirements. 10.2.6 Meets the product standard's requirements. 10.2.6 Meethanical impact 10.2.6 Meethanical impact 10.2.7 Inscriptions 10.2.7 Inscriptions 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Power-frequency electric strength 10.9 Impulse withstand voltage 10.9 Is the panel builder's responsibility. 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.2 Electromagnetic compatibility 10.3 Meehanical function 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Meets the product standard's requirements. 10.2 Does not apply, since the entire switchgear needs to be evaluated. 10.6 Does not apply, since the entire switchgear needs to be evaluated. 10.6 Incorporation of switching devices and components 10.9 Is the panel builder's responsibility. 10.9.2 Power-frequency electric strength 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Meets the product standard's requirements. 10.15 Meets the product standard's requirements. 10.16 Meets the product standard's requirements. 10.17 Meets the entire switchgear needs to be evaluated. 10.18 Meets the product standard's requirements. 10.19 Meets the product standard's requirements. 10.19 Meets the product standard's requirements. 10.19 Meets the product standard's requirements. 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Meets the product	10.2.3.1 Verification of thermal stability of enclosures	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. 10.9.2 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 In the panel builder's responsibility. 10.10 Temperature rise The panel builder's responsibility. The specifications for the switchgear must observed. 10.11 Short-circuit rating Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.12 Electromagnetic compatibility The device meets the requirements, provided the information in the instruction	10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.5 Lifting 10.2.6 Mechanical impact 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of assemblies 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Power-frequency electric strength 10.9 Power-frequency electric strength 10.9 Is the panel builder's responsibility. 10.9 Internal electrical circuits and voltage 10.9 Is the panel builder's responsibility. 10.9 Internal electrical circuits and connections 10.5 Internal electrical circuits and connections 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Is the panel builder's responsibility. 10.9.2 Power-frequency electric strength 10.5 Is the panel builder is responsibility. 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Mechanical function 10.15 Mechanical function 10.16 Mechanical function 10.16 Means the prioduct standard's requirements on the evaluated. 10.16 Meets the product standard's requirements on the evaluated. 10.17 Meets the product standard's requirements. 10.18 Meets the product standard's requirements. 10.19 Meets the product standard's requirements. 10.10 Temperature rise 10.10 T	10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	Meets the product standard's requirements.
10.2.6 Mechanical impact 10.2.7 Inscriptions Meets the product standard's requirements. 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances Meets the product standard's requirements. 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Power-frequency electric strength 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Meets the product standard's requirements. 10.15 Meets the product standard's requirements. 10.16 meets the product standard's requirements. 10.17 Internal electrical circuits and connections 10.8 neets the panel builder's responsibility. 10.9 neets the panel builder's responsibility. 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Mechanical function 10.15 Mechanical function 10.15 Mechanical function 10.16 Meets the product standard's requirements witchgear needs to be evaluated. 10.16 Meets the product standard's requirements. 10.17 Meets the panel builder's responsibility. The specifications for the switchgear must observed. 10.18 Mechanical function 10.19 Meets the panel builder's responsibility. The specifications for the switchgear must observed. 10.19 Meets the panel builder's responsibility. The specifications for the switchgear must observed. 10.19 Meets the panel builder's responsibility. The specifications for the switchgear must observed. 10.19 Meets the panel builder's responsibility. The specifications for the switchgear must observed.	10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
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. Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. The specifications for the switchgear must observed. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. The specifications for the switchgear must observed. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. The device meets the requirements, provided the information in the instruction	10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.4 Electromagnetic compatibility 10.14 Clearances and creepage distances 10.6 Meets the product standard's requirements. 10.0 Does not apply, since the entire switchgear needs to be evaluated. 10.0 Does not apply, since the entire switchgear needs to be evaluated. 10.0 Des not apply, since the entire switchgear needs to be evaluated. 10.0 Evaluated in entire switchgear needs to be evaluated. 10.0 Evaluated in entire switchgear needs to be evaluated. 10.1 Short-circuit rating 10.1 Shor	10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. 10.5 Protection against electric shock Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. The panel builder is responsibility. 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility The device meets the requirements, provided the information in the instruction	10.2.7 Inscriptions	Meets the product standard's requirements.
10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Mechanical function 10.15 We panel builder is responsibility. The specifications for the switchgear must observed. 10.15 The device meets the requirements, provided the information in the instruction	10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.10 The entire switchgear needs to be evaluated. 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Electromagnetic compatibility 10.15 Fig. 10 Does not apply, since the entire switchgear needs to be evaluated. 10.16 Is the panel builder's responsibility. 10.17 Is the panel builder's responsibility. 10.18 Electromagnetic compatibility 10.19 Electromagnetic compatibility 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Electromagnetic compatibility 10.15 Fig. 10 Does not apply, since the entire switchgear needs to be evaluated. 10.16 Electromagnetic seponsibility. 10.17 Is the panel builder's responsibility. 10.18 Electromagnetic compatibility 10.19 Electromagnetic compatibility 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Electromagnetic compatibility 10.15 Electromagnetic compatibility 10.16 Electromagnetic compatibility 10.17 Electromagnetic compatibility 10.18 Electromagnetic compatibility 10.19 Electromagnetic compatibility 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Electromagnetic circuit rating 10.15 Electromagnetic circuit rating 10.16 Electromagnetic circuit rating 10.17 Electromagnetic compatibility 10.18 Electromagnetic circuit rating 10.19 Electromagnetic circuit rating 10.10 Electromagnetic circuit rating 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.15 Electromagnetic circuit rating 10.16 El	10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.10 The panel builder's responsibility. The specifications for the switchgear must observed. 10.13 Mechanical function 10.14 Is the panel builder's responsibility. The specification in the instruction	10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.8 Connections for external conductors 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Short-circuit reservable for the temperature rise calculation. Eaton with provide heat dissipation data for the devices. 10.13 Mechanical function 10.14 Short-circuit reservable for the switchgear must observed. 10.15 The panel builder's responsibility. The specifications for the switchgear must observed. 10.15 The panel builder's responsibility. The specifications for the switchgear must observed. 10.15 The panel builder's responsibility. The specifications for the switchgear must observed. 10.16 The panel builder's responsibility. The specifications for the switchgear must observed. 10.17 The device meets the requirements, provided the information in the instruction.	10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.15 Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.15 Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.15 In device meets the requirements, provided the information in the instruction.	10.7 Internal electrical circuits and connections	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 observed. 10.12 Electromagnetic compatibility 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise The panel builder is responsibility. 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 observed. 10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.9.2 Power-frequency electric strength	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 observed. 10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
provide heat dissipation data for the devices. 10.11 Short-circuit rating Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.12 Electromagnetic compatibility 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
observed. 10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear must observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must observed.
	10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must 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	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			
Nominal output current I2N	Α	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 No
Supporting protocol for AS-Interface Safety at Work		No 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		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