## Speed controllers, 4.3 A, 1.5 kW, Sensor input 4, 180/207 V DC, AS-Interface (8), S-7.4 for 31 modules, HAN Q4/2, with braking resistance



Part no. RASP5-4401A31-4120100S1 198769

Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-4401A31-4120100S1
EAN	4015081968275
Product Length/Depth	157 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.42 kilogram
Certifications	CE RoHS UL approval IEC/EN 61800-5-1 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 junction 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: Fieldbus Parameterization: drivesConnect Parameterization: Keypad Diagnostics and reset on device and via AS-Interface Parameterization: drivesConnect mobile (App)
Fitted with:	Braking resistance Four fixed speeds Key switch position AUTO Key switch position OFF/RESET Key switch position HAND Control unit PC connection Thermo-click with safe isolation Internal DC link Breaking resistance IGBT inverter Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Selector switch (Positions: REV - OFF - FWD) PTC thermistor monitoring
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	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	AC voltage Center-point earthed star network (TN-S network) 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: 6 Hz, Amplitude 0.15 mm Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: According to IEC/EN 60068-2-6 Resistance: 10 - 150 Hz, Oscillation frequency
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	< 95 %, no condensation In accordance with IEC/EN 50178
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 % (η)
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)  Sensorless vector control (SLV)  Synchronous reluctance motors  PM and LSPM motors  BLDC motors  U/f control
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 (Ie)	4.3 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	1.5 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	2 HP

Braking voltage  Switch-on threshold for the braking transistor  Rated conditional short-circuit current (Iq)  Short-circuit protection (external output circuits)  Rated control voltage (Uc)  Communication interface  Connection  Interfaces  Cable length  10.22 Corrosion resistance 10.23.1 Verification of thermal stability of enclosures 10.23.2 Verification of resistance of insulating materials to normal heat 10.23.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects 10.24 Resistance to ultra-violet (UV) radiation 10.25 Lifting 10.26 Mechanical impact 10.27 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	Adjustable to 100 % (I/Ie), DC - Main circuit ≤ 30 % (I/Ie)  280/207 V DC -15 % / +10 %, Actuator for external motor brake  765 V DC  10 kA  Type 1 coordination via the power bus' feeder unit, Main circuit  24 V DC (-15 %/+20 %, external via AS-Interface® plug)  180/207 V DC (external brake 50/60 Hz)  AS-Interface  Plug type: HAN Q4/2  Number of slave addresses: 31 (AS-Interface®)  Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA  Specification: S-7.4 (AS-Interface®)  C1 ≤ 1 m, maximum motor cable length C2 ≤ 5 m, maximum motor cable length C2 ≤ 5 m, maximum motor cable length Meets the product standard's requirements.  Meets the product standard's requirements.
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10.2.4 Resistance to ultra-violet (UV) radiation  10.2.5 Lifting  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	Meets the product standard's requirements.
10.2.5 Lifting  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	
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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	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	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	Meets the product standard's requirements.
10.5 Protection against electric shock  10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Meets the product standard's requirements.
, , ,	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Does not apply, since the entire switchgear needs to be evaluated.
	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.
	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
	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				
Nominal output current I2N	Α	4.3				
Max. output at quadratic load at rated output voltage	kW	1.5				

Max. copural si inner land si runted objust vallage         W         15           Relativa symmetria rinteringency priorance         N         10           Number of analogue nutyputs         0         0           Number of double objuste         0         0           Number of double doubus         0         0           Number of double doubus         0         0           With control element         2         75           Application in doubtail area parmitted         2         76           Application in industrial area parmitted         2         76           Application in industrial area parmitted         2         76           Supporting protected for TCFIP         No         76           Supporting protected for PDERIBLIS         No         76           Supporting protected for INTERBUS         1         76           Supporting protected for INTERBUS         1         76           Supporting protected for VEX         1         76           Supporting protected for Execution         1         76           Supporting protected for Describers         1         76           Supporting protected for Describers         1         76           Supporting protected for PDERIBER CEA         1			
Relative symmetric not voltage beforeace         %         10           Number of anisotigue imports         0         0           Number of anisotigue imports         0         0           Number of adjustal imports         2         0           Number of adjustal imports         2         2           Will control alemant         2         2           Application in inducential area permitted         2         2           Application in inducential area permitted         2         2           Application in inducential area permitted         2         2         Na           Supporting gromes for PROPRIES         3         Na         Na           Supporting gromes for PROPRIES         4         Na         Na           Supporting protect for MASI         N	Max. output at linear load at rated output voltage	kW	1.5
Number of analogoe notyons         0           Number of displace notyons         0           Number of displace notyons         0           Number of displace injusts         4           White control allement         75           Application in informatic area permitted         75           Application in informatic area permitted         75           Application in informatic area permitted         75           Supporting protector of TOPIPP         76           Supporting protector of PROPIEDS         76			
Number of digital outputs         0           Number of digital potagots         2           With control element         74           With control element         72           Application in observati are apermited         72           Application in observati are apermited         72           Supporting protocol for TCPIP         72           Supporting protocol for TCPIP         72           Supporting protocol for MTREBUS         72           Supporting protocol for		%	10
Number of digital roducts         6           Number of digital inguits         4           Number of digital inguits         6           Positionation in industrial area permitted         76           Application in industrial area permitted         76           Application in industrial area permitted         76           Supporting protect for PEDPIP         76           Supporting protect for PEDPIPOS         76           Supporting protect for PROPRIOS         76           Supporting protect for PROPRIOS         76           Supporting protect for MTREBUS         76           Supporting protect for MTREBUS         76           Supporting protect for PROPRIOR         76           Supporting protect for Mobitus         76           Supporting protect for Device of Mobitus         76           Supporting protect for Device of SUDORET         76           Supporting protect for Profile Office Off			0
Number of digital rings         4           With control latement         76           Application in industral area permitted         96           Application in industral area permitted         180           Application in industral area permitted         180           Supporting protocol for TCP/IP         180           Supporting protocol for CRAN         180           Supporting protocol for CRAN         180           Supporting protocol for MSI         180           Supporting protocol for MSI         180           Supporting protocol for Data-Highway         180           Supporting protocol for FROFINET DA         180           Supporting protocol for	Number of analogue inputs		0
With control alamant         Yes           Application in industrial rare parmitted         Yes           Application in industrial rare parmitted         Yes           Supporting protocol for TPDPP         No           Supporting protocol for TPDPB         No           Supporting protocol for TPDPB         No           Supporting protocol for TRTBRUS         No           Supporting protocol for CAN         No           Supporting protocol for NOTERBUS         No           Supporting protocol for Developed         No           Supporting protocol for Developed         No           Supporting protocol for Developed         No           Supporting protocol for PROFINET GA         No           Supporting protocol for PROFINET GA         No           Supporting protocol for PROFINET GA         No           Supporting protocol for Developed Safety         No           Supporting protocol for PROFI			0
Application in industrial area permitted         Yes           Application in industrial area permitted         Yes           Supporting protocol for TOR/IPS         No           Supporting protocol for TOR/IPS         No           Supporting protocol for TOR/IPS         No           Supporting protocol for INTERBUS         No           Supporting protocol for No         Yes           Supporting protocol for Modibus         No           Supporting protocol for Data-Highway         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET BAS         No           Supporting protocol for DevelveNet Safety         No           Supporting protocol for DevelveNet Safety         No           Supporting protocol for PROFINET         No	Number of digital inputs		4
Application in domestic- and commercial area permitted         Yes           Supporting protoced for TCP/IP         No           Supporting protoced for PROFIBUS         No           Supporting protoced for PROFIBUS         No           Supporting protoced for PROFIBUS         No           Supporting protoced for INTERBUS         No           Supporting protoced for MAC         No           Supporting protoced for Medius         No           Supporting protoced for Medius         No           Supporting protoced for Deal-Highway         No           Supporting protoced for Deal-Highway         No           Supporting protoced for SUCONET         No           Supporting protoced for FDRFIRET IO         No           Supporting protoced for PROFINET IO         No           Supporting protoced for FPOFINET IO         No           Supporting proto	With control element		Yes
Supporting protocol for PROPIBUS         No           Supporting protocol for PROPIBUS         No           Supporting protocol for CAN         No           Supporting protocol for INTERIUS         No           Supporting protocol for INTERIUS         No           Supporting protocol for KNX         No           Supporting protocol for Modbus         No           Supporting protocol for Deta-Highway         No           Supporting protocol for ENDENCTION         No           Supporting protocol for ENDENCTION         No           Supporting protocol for POPINATE IO         No           Supporting protocol for FOPINATE IO         No           Supporting protocol for FOPINATE IO         No           Supporting protocol for Endendation Fieldhus         No      <	Application in industrial area permitted		Yes
Supporting protected for PCAN         No           Supporting protected for ECAN         No           Supporting protected for MERBUS         Yes           Supporting protect for ASI         No           Supporting protect for MAD         No           Supporting protect for MAD         No           Supporting protect for MAD         No           Supporting protect for Deal-Highway         No           Supporting protect for Deal-Highway         No           Supporting protect for SUCONET         No           Supporting protect for FOBFINET IO         No           Supporting protect for PROFINET BA         No           Supporting protect for PROFINET BA         No           Supporting protect for FSEROS         No           Supporting protect for DEA	Application in domestic- and commercial area permitted		Yes
Supporting probabot for ANI TERBUS         No           Supporting probabot for ASI         Yes           Supporting probabot for ASIA         No           Supporting probabot for Modbus         No           Supporting probabot for Modbus         No           Supporting probabot for DuviceNet         No           Supporting probabot for DuviceNet         No           Supporting probabot for SUCONET         No           Supporting probabot for PROFINET IO         No           Supporting probabot for PROFINET IOS         No           Supporting probabot for PROFINET IOS         No           Supporting probabot for FROFINET IOS         No           Supporting probabot for PROFINET IOS         No           Supporting probabot for PROFINET IOS         No           Supporting probabot for FROFINET IOS         No           Supporting probabot for EtherAstripe         No           Supporting probabot for EtherAstripe         No           Supporting probabot for EtherAstripe Safety         No           Supporting probabot for PROFINET         No           Supporting probabot for Safe	Supporting protocol for TCP/IP		No
Supporting probabel for INTERBUS         Ne           Supporting probabel for ASI         Yes           Supporting probabel for KNX         No           Supporting probabel for Modbus         No           Supporting probabel for Data-Highway         No           Supporting probabel for DeviceNet         No           Supporting probabel for EvoloNET         No           Supporting probabel for PBOFINET IO         No           Supporting probabel for PBOFINET IO         No           Supporting probabel for PBOFINET EBA         No           Supporting probabel for PBOFINET EBA         No           Supporting probabel for FBOFINET BUB         No           Supporting probabel for FBOFINET BUB         No           Supporting probabel for FBOFINET BUB         No           Supporting probabel for SECOS         No           Supporting probabel for FBOFINET BUB         No           Supporting probabel for Fundation Fieldbus         No           Supporting probabel for No Fieldbus Safety         No           Supporting probabel for No Fieldbus Safety         No      <	Supporting protocol for PROFIBUS		No
Supporting protocol for ASI         Yes           Supporting protocol for NXNS         No           Supporting protocol for Modifus         No           Supporting protocol for Data-Highway         No           Supporting protocol for DeviceNet         No           Supporting protocol for SUCONET         No           Supporting protocol for SUCONET         No           Supporting protocol for EURONETION         No           Supporting protocol for FROFINET CBA         No           Supporting protocol for FROFINET CBA         No           Supporting protocol for FROFINET CBA         No           Supporting protocol for SERCOS         No           Supporting protocol for EuroPayler         No           Supporting protocol for EuroPayler         No           Supporting protocol for EuroPayler         No           Supporting protocol for PROFIsale         No           Supporting protocol for PROFIsale         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Number of HW-interfaces industrial Ethernet         No           Number of HW-interfaces RPOEINET         1           Number of HW-interfaces RP-45 <td>Supporting protocol for CAN</td> <td></td> <td>No</td>	Supporting protocol for CAN		No
Supporting protocol for Madbus         No           Supporting protocol for Modbus         No           Supporting protocol for DavicaNed         No           Supporting protocol for DavicaNed         No           Supporting protocol for DavicaNed         No           Supporting protocol for SUCONET         No           Supporting protocol for SPROFINET IO         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for EberAlexIP         No           Supporting protocol for EberAlexIP         No           Supporting protocol for Anitralex Safety at Work         No           Supporting protocol for Anitralex Safety at Work         No           Supporting protocol for PROFIssafe         No           Supporting protocol for PROFIssafe         No           Supporting protocol for PROFIssafe         No           Supporting protocol for SECOS         No           Supporting protocol for SECOS         No           Supporting protocol for PROFIssafe         No           Supporting protocol for PROFIssafe         No           Supporting protocol for SECOS         No           Supporting protocol for SECOS         No           Supporting protocol f	Supporting protocol for INTERBUS		No
Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No           Supporting protocol for SUCONET         No           Supporting protocol for SUCONET         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for EtherNevIP         No           Supporting protocol for Data-Instance Safety at Work         No           Supporting protocol for PROFIsade         No           Supporting protocol for PROFIsade         No           Supporting protocol for PROFIsade         No           Supporting protocol for SafetyBUSp         No           Supporting protocol for Other busystems         Q           Number of HW-interfaces RA-222         Q           Nu	Supporting protocol for ASI		Yes
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 FROFINET CBA         No           Supporting protocol for EdenOs         No           Supporting protocol for For Chandaion Fieldbus         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for PROFINET         No           Supporting protocol for PROFISARE         No           Supporting protocol for PROFISARE         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for BACnet         No           Supporting protocol for Other bus systems         No           Number of HW-interfaces PROFINET         0           Number of HW-interfaces PROFINET         0           Number of HW-interfaces RS-422         0           Number of HW-interfaces RS-425         0           Number of HW-interfaces RS-426	Supporting protocol for KNX		No
Supporting protocol for DeviceNet         No           Supporting protocol for SUCONET         No           Supporting protocol for SUCONET         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET GA         No           Supporting protocol for SERCOS         No           Supporting protocol for Foundation Fieldbus         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for INTERBUS-Safety at Work         No           Supporting protocol for INTERBUS-Safety         No           Supporting protocol for PROFISase         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for Other bus systems         No           Sumber of HW-interfaces Risdustrial Ethernet         0           Number of HW-interfaces Risdustrial Et	Supporting protocol for Modbus		No
Supporting protocol for DeviceNet         No           Supporting protocol for SUCONET         No           Supporting protocol for SUCONET         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET GA         No           Supporting protocol for SERCOS         No           Supporting protocol for Foundation Fieldbus         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for EtherNet/IP         No           Supporting protocol for INTERBUS-Safety at Work         No           Supporting protocol for INTERBUS-Safety         No           Supporting protocol for PROFISase         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for SafetyBUS 9         No           Supporting protocol for Other bus systems         No           Sumber of HW-interfaces Risdustrial Ethernet         0           Number of HW-interfaces Risdustrial Et	Supporting protocol for Data-Highway		No
Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for SERCOS         No           Supporting protocol for EtherNev/P         No           Supporting protocol for EderNev/P         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 SafetyBUS p         No	Supporting protocol for DeviceNet		No
Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for SERCOS         No           Supporting protocol for EtherNev/P         No           Supporting protocol for EderNev/P         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 SafetyBUS p         No	Supporting protocol for SUCONET		No
Supporting protocol for PROFINET CBANoSupporting protocol for SERCOSNoSupporting protocol for Foundation FieldbusNoSupporting protocol for EtherNet/IPNoSupporting protocol for AS-Interface Safety at WorkNoSupporting protocol for AS-Interface Safety at WorkNoSupporting protocol for INTERBUS-SafetyNoSupporting protocol for PROFISafeNoSupporting protocol for SafetyBUS pNoSupporting protocol for SafetyBUS pNoSupporting protocol for SafetyBUS pNoSupporting protocol for ther bus systemsNoNumber of HW-interfaces industrial Ethernet0Number of HW-interfaces RS-4220Number of HW-interfaces RS-4280Number of HW-interfaces RS-4281Number of HW-interfaces RS-4850Number of HW-interfaces RS-4850Number of HW-interfaces RS-4860Number of HW-interfaces RS-4870Number of HW-interfaces RS-4880Number of HW-interfaces RS-4880Number of HW-interfaces arial TTY0Number of HW-interfaces arial Ethernet0Number of HW-interfaces other0Vith optical interfaceNoWith optical interfaceNoWith optical interfaceNoWith optical interfaceNoWith optical interfaceNo			No
Supporting protocol for PROFINET CBANoSupporting protocol for SERCOSNoSupporting protocol for Foundation FieldbusNoSupporting protocol for EtherNet/IPNoSupporting protocol for AS-Interface Safety at WorkNoSupporting protocol for AS-Interface Safety at WorkNoSupporting protocol for INTERBUS-SafetyNoSupporting protocol for PROFISafeNoSupporting protocol for SafetyBUS pNoSupporting protocol for SafetyBUS pNoSupporting protocol for SafetyBUS pNoSupporting protocol for ther bus systemsNoNumber of HW-interfaces industrial Ethernet0Number of HW-interfaces RS-4220Number of HW-interfaces RS-4280Number of HW-interfaces RS-4281Number of HW-interfaces RS-4850Number of HW-interfaces RS-4850Number of HW-interfaces RS-4860Number of HW-interfaces RS-4870Number of HW-interfaces RS-4880Number of HW-interfaces RS-4880Number of HW-interfaces arial TTY0Number of HW-interfaces arial Ethernet0Number of HW-interfaces other0Vith optical interfaceNoWith optical interfaceNoWith optical interfaceNoWith optical interfaceNoWith optical interfaceNo	Supporting protocol for PROFINET IO		No
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Supporting protocol for EtherNet/IP Supporting protocol for AS-Interface Safety at Work Supporting protocol for DeviceNet Safety Supporting protocol for INTERBUS-Safety Supporting protocol for INTERBUS-Safety No Supporting protocol for PROFIsafe Supporting protocol for SafetyBUS p Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for SafetyBUS p Supporting protocol for Other bus systems No Number of HW-interfaces industrial Ethernet O Number of HW-interfaces RS-232 Number of HW-interfaces RS-232 Number of HW-interfaces RS-425 Number of HW-interfaces RS-485 Interfaces RS-485 Number of HW-interfaces Safety RS-485 No			No
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Supporting protocol for other bus systems  Number of HW-interfaces industrial Ethernet  O Number of interfaces PROFINET  O Number of HW-interfaces RS-232  Number of HW-interfaces RS-232  Number of HW-interfaces RS-422  Number of HW-interfaces RS-425  Number of HW-interfaces serial TTY  O Number of HW-interfaces serial TTY  O Number of HW-interfaces USB  O Number of HW-interfaces parallel  O Number of HW-interfaces other  I With optical interface  Ves  Integrated breaking resistance  No	1 1		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 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  Number of HW-interfaces  Yes			
Number of interfaces PROFINET  Number of HW-interfaces RS-232  Number of HW-interfaces RS-422  Number of HW-interfaces RS-485  Number of HW-interfaces serial TTY  Number of HW-interfaces uSB  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  No  With optical interface  With optical interface  Yes  Integrated breaking resistance			
Number of HW-interfaces RS-232  Number of HW-interfaces RS-422  Number of HW-interfaces RS-485  Number of HW-interfaces serial TTY  Number of HW-interfaces uses  Number of HW-interfaces uses  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  No  With optical interface  No  With PC connection  Integrated breaking resistance  Yes			
Number of HW-interfaces RS-422  Number of HW-interfaces RS-485  Number of HW-interfaces serial TTY  Number of HW-interfaces USB  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  No  With optical interface  With Optical interface  No  With PC connection  Integrated breaking resistance  Yes			
Number of HW-interfaces RS-485  Number of HW-interfaces serial TTY  Number of HW-interfaces USB  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  No  With optical interface  No  With PC connection  Integrated breaking resistance  1			
Number of HW-interfaces serial TTY  Number of HW-interfaces USB  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  Number of HW-interfaces other  No  With optical interface  No  With PC connection  Yes  Integrated breaking resistance  Yes			
Number of HW-interfaces USB  Number of HW-interfaces parallel  Number of HW-interfaces other  Number of HW-interfaces other  1  With optical interface  No  With PC connection  Integrated breaking resistance  Yes			
Number of HW-interfaces parallel 0 Number of HW-interfaces other 1 With optical interface No With PC connection Yes Integrated breaking resistance Yes			
Number of HW-interfaces other 1 With optical interface No With PC connection Yes Integrated breaking resistance Yes			
With optical interface No With PC connection Yes Integrated breaking resistance Yes			
With PC connection Yes Integrated breaking resistance Yes			
Integrated breaking resistance Yes			
T-quadrant operation possible			
Type of converter  U converter  Degree of protection (IP)			
Degree of protection (IP)  Person of protection (NEMA)			
Degree of protection (NEMA)  12			
Height mm 270			
Width mm 220			
Depth mm 157	Deptn	mm	15/