Speed controller, 4.3 A, 1.5 kW, Sensor input 4, 400/480 V AC, AS-Interface \$, S-7.4 for 31 modules, HAN Q5, with braking resistance



Part no. RASP5-4404A31-5120100S1 198559

Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-4404A31-5120100S1
EAN	4015081964345
Product Length/Depth	157 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.42 kilogram
Certifications	UL approval CE IEC/EN 61800-5-1 RoHS 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) Diagnostics and reset on device and via AS-Interface Parameterization: Fieldbus Parameterization: drivesConnect
Fitted with:	Internal DC link Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Selector switch (Positions: REV - OFF - FWD) Four fixed speeds Control unit PTC thermistor monitoring IGBT inverter Key switch position HAND Thermo-click with safe isolation Breaking resistance PC connection Key switch position AUTO Key switch position OFF/RESET Braking resistance
Functions	4-quadrant operation possible Brake chopper with braking resistance for dynamic braking For actuation of motors with mechanical brake
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 ASI
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.
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 shooms, 1000 shocks per shaft
Vibration	Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: 6 Hz, Amplitude 0.15 mm Resistance: According to IEC/EN 60068-2-6
Altitude	Above 1000 m with 1 % performance reduction per 100 m Max. 2000 m
Ambient operating temperature - min	-10 °C
Ambient operating temperature - max	40 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C
Climatic proofing	< 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 90% speed 48.7 W at 100% current and 0% 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) PM and LSPM motors Synchronous reluctance motors BLDC motors U/f control Sensorless vector control (SLV)
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 secon 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
Drawing torque	≤ 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)
	217 DO (10 %) 120 %, Oxionial via 70 micinado piagy
Communication interface	AS-Interface
Connection	Plug type: HAN Q5
Interfaces	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
Cable length	C1 \leq 1 m, maximum motor cable length C2 \leq 5 m, maximum motor cable length C3 \leq 25 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	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 Extra Highways 1 76 Supporting protected for Describer 1 76 Supporting protected for PDERIBLE CEA 76 76 Supporting protected for PDERIBLE CEA 76 <th></th> <th></th> <th></th>			
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 PEPIP 76 Supporting protect for PEPIP 76 Supporting protect for PROPIPUS 76 Supporting protect for PROPIPUS 76 Supporting protect for MTREBUS 76 Supporting protect for PROPIPUS 76 Supporting protect for Device of PROPIPUS 76 Supporting protect for PROPIPUS TOR 76 Supporting protect for Promitted for PROPIPUS TOR 76 Supporting protect for Foundation Fieldbus 76 Supporting protect for Foundation Fieldbus 76 Supporting protect for Foundation Fieldbus 76 Supporting protect fo			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 NATE Yes Supporting protocol for Modibus No Supporting protocol for Data-Highway No Supporting protocol for PROFINET IO No Supporting protocol for PROFINET IO No Supporting protocol for EnterlawDiff No Supporting protocol for EnterlawDiff No Supporting protocol for EnterlawDiff 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 Supporting protocol for Salendate Safety at Wark 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 Data-Highway No Supporting protect for Data-Highway No Supporting protect for SUCONET No Supporting protect for FDRFINET IO No Supporting protect for PDRFINET EDA No Supporting protect for PDRFINET EDA No Supporting protect for FDRFINET EDA	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 Davis Allighowy No Supporting probabot for PROFINET (IO No Supporting probabot for PROFINET (BA No Supporting probabot for FMORPHARDER No Supporting probabot for EtherAsor FMORPHARDER No Supporting probabot for EtherAsor FMORPHARDER No Supporting probabot for PROFINET No Supporting probabot for PROFINET No Supporting probabot for FMA-metal Safety No Supporting probabot for PROFINET No <	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 EvolotNET 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 Faundation Fieldbus No Supporting probabel for No Fieldbus Safety No Supporting probabel for PBOFIsafe <td>Supporting protocol for PROFIBUS</td> <td></td> <td>No</td>	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 EuroPalVPI No Supporting protocol for EuroPalVPI No Supporting protocol for EuroPalVPI 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 SafetyBUS p No Supporting protocol for SafetyBUS p No Supporting protocol for SafetyBUS p No Supporting protocol for Other busystems Q Number of HW-interfaces industrial Ethernet Q Number of HW-interfaces RS-422 Q	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 PROFINET No Supporting protocol for PROFINET No Supporting protocol for SafetyBUS p No Supporting protocol for SafetyBUS p No Supporting protocol for BACnet 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-428<	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 industrial Ethernet 0 Number of HW-interfaces RS-422 0 Number of HW-interfaces RS-425 0 Number of HW-interfaces RS-425 0 Number of HW-interfaces RS-485 0 Number of HW-interfaces RS-485 0 Number of	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 industrial Ethernet 0 Number of HW-interfaces RS-422 0 Number of HW-interfaces RS-425 0 Number of HW-interfaces RS-425 0 Number of HW-interfaces RS-485 0 Number of HW-interfaces RS-485 0 Number of	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 ProviceNet SafetyNoSupporting protocol for INTERBUS-SafetyNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for ther bus systemsNoNumber of HW-interfaces industrial Ethernet0Number of HW-interfaces RS-4220Number of HW-interfaces RS-4281Number of HW-interfaces RS-4280Number of HW-interfaces RS-4851Number 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 TTY0Number of HW-interfaces arial TY0Number of HW-interfaces arial TY0Numb			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 ProviceNet SafetyNoSupporting protocol for INTERBUS-SafetyNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for SAI-StateyBUS pNoSupporting protocol for ther bus systemsNoNumber of HW-interfaces industrial Ethernet0Number of HW-interfaces RS-4220Number of HW-interfaces RS-4281Number of HW-interfaces RS-4280Number of HW-interfaces RS-4851Number 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 TTY0Number of HW-interfaces arial TY0Number of HW-interfaces arial TY0Numb	Supporting protocol for PROFINET IO		No
Supporting protocol for SERCOS Supporting protocol for Foundation Fieldbus Supporting protocol for EtherNet/IP Supporting protocol for AS-Interface Safety at Work Supporting protocol for DeviceNet Safety Supporting protocol for DeviceNet Safety Supporting protocol for INTERBUS-Safety Supporting protocol for SafetyBUS-Safety Supporting protocol for SafetyBUS-Safety Supporting protocol for SafetyBUS-Safety Supporting protocol for SafetyBUS-Safety Supporting protocol for BACnet Supporting protocol for BACnet Supporting protocol for other bus systems Supporting protocol for other bus systems Supporting protocol for other bus systems Supporting protocol for HW-interfaces industrial Ethernet Supporting protocol for Other bus systems Supporting protocol for BACnet Supporting protocol for Other bus systems Supporting protoco			No
Supporting protocol for Foundation Fieldbus Supporting protocol for EtherNevIIP Supporting protocol for AS-Interface Safety at Work Supporting protocol for DeviceNet Safety Supporting protocol for INTERBUS-Safety Supporting protocol for INTERBUS-Safety Supporting protocol for SafetyBUS p Supporting protocol for SafetyBUS p Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for BACnet Supporting protocol for Bachet Supporting protocol for Bachet Supporting protocol for Other bus systems No Supporting protocol for Other bus systems No Number of HW-interfaces Industrial Ethernet O Number of HW-interfaces PROFINET O Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 Number of HW-interfaces RS-425 Number of HW-interfaces SR-485 Number of HW-interfaces SR-485 Number of HW-interfaces SP-321 Number of HW-interfaces SP-322 Number of HW-interfaces SP-323 Number of HW-interfaces SP			No
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
Supporting protocol for AS-Interface Safety at Work Supporting protocol for DeviceNet Safety Supporting protocol for INTERBUS-Safety No Supporting protocol for INTERBUS-Safety No Supporting protocol for SafetyBUS p Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for other bus systems No Number of HW-interfaces industrial Ethernet O Number of interfaces PROFINET Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 Number of HW-interfaces RS-422 Number of HW-interfaces RS-425 Number of HW-interfaces RS-425 Number of HW-interfaces Safety S			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 SafetyBUS p No Supporting protocol for BACnet No Supporting protocol for other bus systems No Number of HW-interfaces industrial Ethernet O Number of interfaces PROFINET O Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 Number of HW-interfaces RS-422 Number of HW-interfaces RS-425 Number of HW-interfaces RS-485 Number of HW-interfaces SI-485 Number of HW-interfaces SI-485 Number of HW-interfaces SI-485 Number of HW-interfaces SI-485 Number of HW-interfaces serial TTY Number of HW-interfaces serial TTY Number of HW-interfaces othe Number of HW-interfaces othe Number of HW-interfaces other Number of HW-interfaces other Number of HW-interfaces other No With optical interface With optical interface With pC connection No With PC connection Yes			
Supporting protocol for INTERBUS-Safety Supporting protocol for PROFIsafe Supporting protocol for SafetyBUS p Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for other bus systems No Number of HW-interfaces industrial Ethernet Number of interfaces PROFINET Number of HW-interfaces RS-232 Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 Number of HW-interfaces RS-485 Number of HW-interfaces RS-485 Number of HW-interfaces RS-485 Number of HW-interfaces srial TTY Number of HW-interfaces subs Number of HW-interfaces parallel Number of HW-interfaces parallel 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 No Number of HW-interfaces other No			
Supporting protocol for PROFIsafe Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for BACnet Supporting protocol for backnet Supporting protocol for other bus systems No No Number of HW-interfaces industrial Ethernet O Number of HW-interfaces PROFINET O Number of HW-interfaces RS-232 O Number of HW-interfaces RS-232 O Number of HW-interfaces RS-422 O Number of HW-interfaces RS-485 I Number of HW-interfaces serial TTY O Number of HW-interfaces serial TTY O Number of HW-interfaces usb Number of HW-interfaces other O Number of HW-interfaces other O Number of HW-interfaces other Vith optical interface Vith optical interface Vith PC connection Vith PC connection Vite great sistance Vita Supporting protocol for SafetyBUS Supporting Protocol Safety Safety Supporting Protocol Safety Supporting Protocol Safety Suppo			No
Supporting protocol for SafetyBUS p Supporting protocol for BACnet Supporting protocol for other bus systems No Number of HW-interfaces industrial Ethernet Number of interfaces PROFINET Number of HW-interfaces RS-232 Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 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 usb Number of HW-interfaces usb Number of HW-interfaces other No No Number of HW-interfaces other No	11 11		
Supporting protocol for BACnet Supporting protocol for other bus systems No Number of HW-interfaces industrial Ethernet O Number of HW-interfaces RS-QSI Number of HW-interfaces RS-232 Number of HW-interfaces RS-422 O Number of HW-interfaces RS-425 Number of HW-interfaces RS-485 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 Number of HW-interfaces other Vith optical interface Vith Optical interface Vith PC connection Integrated breaking resistance No			No
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/