Reversing starter, 6.6 A, Sensor input 2, Actuator output 1, 180/207 V DC, AS-Interface \$, S-7.4 for 31 modules, HAN Q4/2



Part no. RAM05-W211A31-4120S1 199085

Passe asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz  Features  Features  Features  Find with:  Fitted with:  F		
Finds tangity Depth 1 120 millimetre 1 1	Product name	Eaton Moeller® series Rapid Link Reversing starter
Product vesign Peph Per Product vesign Per Product vesign Per	Part no.	RAM05-W211A31-4120S1
Product height         270 millimetra           Product width         280 millimetra           Certifications         164 forgemen           Certifications         NeWS           Lut approval         Un 8094-1-2 united the second of the control of the co	EAN	4015081971435
Product weight Cardications Car	Product Length/Depth	120 millimetre
Product weight Certifications Certif	Product height	270 millimetre
Curlination         RANS LUNSPAT-42 UL Approval Experience         RANS LUNSPAT-42 UL Approval Experience           Product Tradename         Repetit Link           Product Type         None           Catalog Motes         Assigned motor rating for normal internally and externally ventilated 4 pols, three plans and product rating of motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz           Features         Parameterization divasConnect mobile (App)           Favorable Vision         Parameterization divasConnect mobile (App)           Parameterization Fieldbus         Parameterization (Fieldbus Parameterization Fieldbus Parameterization Fie	Product width	220 millimetre
Class   Clas	Product weight	1.64 kilogram
Product Type Product Sub Type Catalog Notes	Certifications	UL 60947-4-2 UL approval IEC/EN 60947-4-2 CE
Product Sub Type Catalog Notes Catalog C	Product Tradename	Rapid Link
Catalog Notes         Assigned motor rating-for normal internally and externally ventilated 4 point, three phase asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 600 Hz           Features         Parameterization: drives Connect mobile (App)           Features         Parameterization: drives Connect mobile (App)           Diagnostic and reast on drives Connect mobile (App)         Parameterization: drives Connect mobile (App)           Features         Parameterization: drives Connect mobile (App)           Parameterization: drives Connect mobile (App)         Parameterization: drives Connect mobile (App)           Parameterization: drives Connect mobile (App)         Parameterization: drives connect mobile (App)           Parameterization: drives Connect mobile (App)         Parameterization: drives connect and as AS-interface           Filled with:         Libration of the parameterization of the parameterization and as a direct and as AS-interface           Filled with:         Parameterization (App)           Filled with:         Parameterization (App)           Parameterization (App)         Parameterization (App)           Parameterization (App)         Parameterization (App)           Electromagnetic compatibility         Class 10 A           Lilespan, electrical         Class A           Lilespan, mechanical         10000000 Operations (at AC-3)           Lilespan, mechanical         20 A A <tr< td=""><td>Product Type</td><td>Reversing starter</td></tr<>	Product Type	Reversing starter
Passe asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz  Features  Features  Features  Find with:  Fitted with:  F	Product Sub Type	None
Parametrization: drivesConnect Parametrization: Rejoldus Parametrization: Fieldus Parametrizatio	Catalog Notes	Assigned motor rating: for normal internally and externally ventilated 4 pole, three phase asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz
Literan electrical compatibility         Image: Compatibility         <	Features	Parameterization: drivesConnect Diagnostics and reset on device and via AS-Interface Parameterization: Fieldbus
Class     CLASS 10 A       Degree of protection     NEMA 12 PRE5       Electromagnetic compatibility     CLASS A       Lifespan, electrical     10,000,000 Operations (at AC-3)       Lifespan, mechanical     10,000,000 Operations (at AC-3)       Model     Reversing starter       Overload release current setting - min     AS A       Overload release current setting - max     AS A       Overvoltage category     III       Protocol     AS-Interface profile cable: S-7.4 for 31 modules ASI       Rated impulse withstand voltage (Uimp)     4000 V       System configuration type     AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)       Type     Eversing starter	Fitted with:	Thermo-click Key switch position HAND Electronic motor protection Thermistor monitoring PTC Key switch position AUTO Key switch position OFF/RESET Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation
Degree of protection     NEMA 12 PRES       Electromagnetic compatibility     Class A       Lifespan, electrical     10,000,000 Operations (at AC-3)       Lifespan, mechanical     10,000,000 Operations (at AC-3)       Model     Reversing starter       Overload release current setting - min     0.3 A       Overload release current setting - max     6.6 A       Overvoltage category     III       Product category     Motor starter       Protocol     AS-Interface profile cable: S-7.4 for 31 modules S-	Functions	External reset possible
Degree of protection     NEMA 12 PRES       Electromagnetic compatibility     Class A       Lifespan, electrical     10,000,000 Operations (at AC-3)       Lifespan, mechanical     10,000,000 Operations (at AC-3)       Model     Reversing starter       Overload release current setting - min     0.3 A       Overload release current setting - max     6.6 A       Overvoltage category     III       Product category     Motor starter       Protocol     AS-Interface profile cable: S-7.4 for 31 modules S-		
Electromagnetic compatibility  Lifespan, electrical  Lifespan, mechanical  Model  Overload release current setting - min  Overvoltage category  Product category  Protocol  Rated impulse withstand voltage (Uimp)  System configuration type  Type  Proposed Serversing starter  Reversing starter  Class A  1,000,000 Operations (at AC-3)  1,000,000 Operat	Class	CLASS 10 A
Lifespan, electrical10,000,000 Operations (at AC-3)Lifespan, mechanical10,000,000 Operations (at AC-3)ModelReversing starterOverload release current setting - min0.3 AOverload release current setting - max6.6 AOvervoltage categoryIIIProduct categoryMotor starterProtocolAS-Interface profile cable: S-7.4 for 31 modules ASIRated impulse withstand voltage (Uimp)4000 VSystem configuration typeAC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)TypeReversing starter	Degree of protection	
Lifespan, mechanical 10,000,000 Operations (at AC-3)  Model Reversing starter  Overload release current setting - min 0.3 A  Overload release current setting - max 0.66 A  Overvoltage category III  Product category Motor starter  Protocol AS-Interface profile cable: S-7.4 for 31 modules ASI  Rated impulse withstand voltage (Uimp) 4000 V  System configuration type Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type Reversing starter	Electromagnetic compatibility	Class A
ModelReversing starterOverload release current setting - min0.3 AOverload release current setting - max6.6 AOvervoltage categoryIIIProduct categoryMotor starterProtocolAS-Interface profile cable: S-7.4 for 31 modules ASIRated impulse withstand voltage (Uimp)4000 VSystem configuration typeAC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)TypeReversing starter	Lifespan, electrical	10,000,000 Operations (at AC-3)
Overload release current setting - min Overload release current setting - max Overvoltage category III Product category Motor starter Protocol AS-Interface profile cable: S-7.4 for 31 modules ASI Rated impulse withstand voltage (Uimp) AC voltage System configuration type AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network) Reversing starter	Lifespan, mechanical	10,000,000 Operations (at AC-3)
Overload release current setting - max  Overvoltage category  III  Product category  Motor starter  AS-Interface profile cable: S-7.4 for 31 modules ASI  Rated impulse withstand voltage (Uimp)  AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type  Reversing starter	Model	Reversing starter
Overvoltage category Product category Motor starter Protocol Rated impulse withstand voltage (Uimp) System configuration type Type Reversing starter  III  Motor starter  AS-Interface profile cable: S-7.4 for 31 modules AS-Interface p	Overload release current setting - min	0.3 A
Product category  Motor starter  AS-Interface profile cable: S-7.4 for 31 modules ASI  Rated impulse withstand voltage (Uimp)  System configuration type  AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type  Reversing starter	Overload release current setting - max	6.6 A
Protocol  AS-Interface profile cable: S-7.4 for 31 modules ASI  Rated impulse withstand voltage (Uimp)  4000 V  System configuration type  AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type  Reversing starter	Overvoltage category	III
Rated impulse withstand voltage (Uimp)  System configuration type  AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type  Reversing starter	Product category	Motor starter
System configuration type  AC voltage Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type  Reversing starter	Protocol	
Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)  Type Reversing starter	Rated impulse withstand voltage (Uimp)	4000 V
		Phase-earthed AC supply systems are not permitted. Center-point earthed star network (TN-S network)
Voltage type DC		

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	Above 1000 m with 1 % performance reduction per 100 m Max. 2000 m Max. 1000 m
Ambient operating temperature - min	-10 °C
Ambient operating temperature - max	55 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C
Climatic proofing	In accordance with IEC/EN 50178 < 95 %, no condensation
Current limitation	0.3 - 6.6 A, motor, main circuit Adjustable, motor, main circuit
Input current	6.6 A (at 150 % Overload)
Mains switch-on frequency	Maximum of one time every 60 seconds
Mains voltage tolerance	380 - 480 V (-15 %/+10 %, at 50/60 Hz)
Off-delay	20 - 35 ms
On-delay	20 - 35 ms
Output frequency	50/60 Hz
Overload cycle	AC-53a
Rated frequency - max Rated frequency - min	63 Hz 47 Hz
Rated operational current (Ie)	6.6 A
Rated operational current (le) at 150% overload	6.6 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	6.6 A
Rated operational power at 380/400 V, 50 Hz - max	3 kW
Rated operational power at 380/400 V, 50 Hz - min	0.09 kW
Rated operational power at AC-3, 220/230 V, 50 Hz	0 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	3 kW
Rated operational voltage	400 V AC, 3-phase 480 V AC, 3-phase
Supply frequency	50/60 Hz, fLN, Main circuit
Assigned motor power at 460/480 V, 60 Hz, 3-phase	3 HP
Braking current	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
Braking voltage	180/215 V DC -15 % / +10 %, Actuator for external motor brake
Rated conditional short-circuit current (Iq)	10 kA
Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V	0 A
Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Rated control supply voltage (Us) at AC, 50 Hz - min	0 V
Rated control supply voltage (Us) at AC, 50 Hz - max	0 V
Rated control supply voltage (Us) at AC, 60 Hz - min	0 V
Rated control supply voltage (Us) at AC, 60 Hz - max	0 V
Rated control supply voltage (Us) at DC - min	0 V
Rated control supply voltage (Us) at DC - max	0 V
Rated control voltage (Uc)	180/207 V DC (external brake 50/60 Hz) 24 V DC (-15 %/+20 %, external via AS-Interface® plug)

Connection	Connections pluggable in power section
Interfaces	Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA Specification: S-7.4 (AS-Interface®) Number of slave addresses: 31 (AS-Interface®)
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	1
Cable length	10 m, Radio interference level, 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) / Motor starter/Motor starter combination (EC001037)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss10.0.1-27-37-09-05 [AJZ718013])

[A02710010]]		
Type of motor starter		Reversing starter
With short-circuit release		Yes
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		DC
Rated operation power at AC-3, 230 V, 3-phase	kW	V 0
Rated operation power at AC-3, 400 V	kW	V 3
Rated power, 460 V, 60 Hz, 3-phase	kW	V 2.238
Rated power, 575 V, 60 Hz, 3-phase	kW	V 0
Rated operation current le	Α	6.6
Rated operation current at AC-3, 400 V	Α	6.6
Overload release current setting	Α	0.3 - 6.6
Rated conditional short-circuit current, type 1, 480 Y/277 V	А	65,000
Rated conditional short-circuit current, type 1, 600 Y/347 V $$	А	0
Rated conditional short-circuit current, type 2, 230 V	А	0
Rated conditional short-circuit current, type 2, 400 V	А	0

Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as normally closed contact  Ambient temperature, upper operating limit  CC 55  Temperature compensated overload protection  Release class  Type of electrical connection of main circuit  Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  Suitable for emergency stop  I 1  O 0  CLASS 10 A  CLASS 10 A  Plug-in connection  No  No  No  No  No  No  No  No  No
Ambient temperature, upper operating limit  CC  Temperature compensated overload protection  Release class  CLASS 10 A  Type of electrical connection of main circuit  Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  CASS 10 A  CLASS 10 A  Plug-in connection  Plug-in connection  No  2
Temperature compensated overload protection  Release class  CLASS 10 A  Type of electrical connection of main circuit  Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  Yes  CLASS 10 A  Plug-in connection  No  No  2
Release class  CLASS 10 A  Type of electrical connection of main circuit  Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  CLASS 10 A  Plug-in connection  Plug-in connection  No  2
Type of electrical connection of main circuit  Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  Plug-in connection  No
Type of electrical connection for auxiliary- and control current circuit  Rail mounting possible  With transformer  No  Number of command positions  Plug-in connection  No  2
Rail mounting possible No With transformer No Number of command positions 2
With transformer No No Number of command positions 2
Number of command positions 2
Suitable for emergency stop No
Coordination class according to IEC 60947-4-3 Class 1
Number of indicator lights 0
External reset possible Yes
With fuse No
Degree of protection (IP)
Degree of protection (NEMA) 12
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 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
Supporting protocol for AS-Interface Safety at Work
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 other bus systems No
Width mm 220
Height mm 270
Depth mm 120