

**Reversing starter, 6.6 A, Sensor input 2, Actuator output 1, 400/480 V AC,  
AS-Interface®, S-7.A.E. for 62 modules, HAN Q4/2**



**Part no. RAM05-W214A32-4120S1  
199097**

|                                        |                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                           | Eaton Moeller® series Rapid Link Reversing starter                                                                                                                                                                                                                                                                     |
| Part no.                               | RAM05-W214A32-4120S1                                                                                                                                                                                                                                                                                                   |
| EAN                                    | 4015081971558                                                                                                                                                                                                                                                                                                          |
| Product Length/Depth                   | 120 millimetre                                                                                                                                                                                                                                                                                                         |
| Product height                         | 270 millimetre                                                                                                                                                                                                                                                                                                         |
| Product width                          | 220 millimetre                                                                                                                                                                                                                                                                                                         |
| Product weight                         | 1.64 kilogram                                                                                                                                                                                                                                                                                                          |
| Certifications                         | UL 60947-4-2<br>IEC/EN 60947-4-2<br>RoHS<br>CCC<br>UL approval<br>CE                                                                                                                                                                                                                                                   |
| Product Tradename                      | Rapid Link                                                                                                                                                                                                                                                                                                             |
| Product Type                           | Reversing starter                                                                                                                                                                                                                                                                                                      |
| Product Sub Type                       | None                                                                                                                                                                                                                                                                                                                   |
| 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                                                                                                                                                             |
| Features                               | Parameterization: Fieldbus<br>Parameterization: Keypad<br>Parameterization: drivesConnect mobile (App)<br>Parameterization: drivesConnect<br>Diagnostics and reset on device and via AS-Interface                                                                                                                      |
| Fitted with:                           | Electronic motor protection<br>1 Actuator output<br>Thermo-click<br>Key switch position OFF/RESET<br>Key switch position HAND<br>Thermistor monitoring PTC<br>Key switch position AUTO<br>Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation<br>Short-circuit release |
| Functions                              | For actuation of motors with mechanical brake<br>External reset possible<br>Temperature compensated overload protection                                                                                                                                                                                                |
| Class                                  | CLASS 10 A                                                                                                                                                                                                                                                                                                             |
| Degree of protection                   | NEMA 12<br>IP65                                                                                                                                                                                                                                                                                                        |
| 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 62 modules<br>ASI                                                                                                                                                                                                                                                                |
| Rated impulse withstand voltage (Uimp) | 4000 V                                                                                                                                                                                                                                                                                                                 |
| System configuration type              | Phase-earthed AC supply systems are not permitted.<br>AC voltage<br>Center-point earthed star network (TN-S network)                                                                                                                                                                                                   |
| Type                                   | Reversing starter                                                                                                                                                                                                                                                                                                      |
| Voltage type                           | DC                                                                                                                                                                                                                                                                                                                     |

|                                                                           |                                                                                                                                                                                                         |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting position                                                         | Vertical                                                                                                                                                                                                |
| Shock resistance                                                          | 15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half-sinusoidal shock 11 ms, 1000 shocks per shaft                                                                                             |
| Vibration                                                                 | Resistance: 10 - 150 Hz, Oscillation frequency<br>Resistance: 57 Hz, Amplitude transition frequency on acceleration<br>Resistance: 6 Hz, Amplitude 0.15 mm<br>Resistance: According to IEC/EN 60068-2-6 |
| Altitude                                                                  | Max. 1000 m<br>Max. 2000 m<br>Above 1000 m with 1 % performance reduction per 100 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                                                         | < 95 %, no condensation<br>In accordance with IEC/EN 50178                                                                                                                                              |
| Current limitation                                                        | 0.3 - 6.6 A, motor, main circuit<br>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                                                     | 63 Hz                                                                                                                                                                                                   |
| Rated frequency - min                                                     | 47 Hz                                                                                                                                                                                                   |
| Rated operational current (Ie)                                            | 6.6 A                                                                                                                                                                                                   |
| Rated operational current (Ie) 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<br>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                                                           | 400/480 V AC -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)                                                | 400/480 V AC (external brake 50/60 Hz)<br>24 V DC (-15 %/+20 %, external via AS-Interface® plug)                                                                                                        |

|                                                                                  |  |                                                                                                                                                                              |
|----------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connection                                                                       |  | Connections pluggable in power section                                                                                                                                       |
| Interfaces                                                                       |  | Specification: S-7.A.E. (AS-Interface®)<br>Number of slave addresses: 62 (AS-Interface®)<br>Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA |
| 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]) |    |                   |
| Type of motor starter                                                                                                                                                                            |    | Reversing starter |
| With short-circuit release                                                                                                                                                                       |    | Yes               |
| Rated control supply voltage $U_s$ at AC 50HZ                                                                                                                                                    | V  | 0 - 0             |
| Rated control supply voltage $U_s$ at AC 60HZ                                                                                                                                                    | V  | 0 - 0             |
| Rated control supply voltage $U_s$ at DC                                                                                                                                                         | V  | 0 - 0             |
| Voltage type for actuating                                                                                                                                                                       |    | DC                |
| Rated operation power at AC-3, 230 V, 3-phase                                                                                                                                                    | kW | 0                 |
| Rated operation power at AC-3, 400 V                                                                                                                                                             | kW | 3                 |
| Rated power, 460 V, 60 Hz, 3-phase                                                                                                                                                               | kW | 2.238             |
| Rated power, 575 V, 60 Hz, 3-phase                                                                                                                                                               | kW | 0                 |
| Rated operation current $I_e$                                                                                                                                                                    | A  | 6.6               |
| Rated operation current at AC-3, 400 V                                                                                                                                                           | A  | 6.6               |
| Overload release current setting                                                                                                                                                                 | A  | 0.3 - 6.6         |
| Rated conditional short-circuit current, type 1, 480 Y/277 V                                                                                                                                     | A  | 65,000            |
| Rated conditional short-circuit current, type 1, 600 Y/347 V                                                                                                                                     | A  | 0                 |
| Rated conditional short-circuit current, type 2, 230 V                                                                                                                                           | A  | 0                 |
| Rated conditional short-circuit current, type 2, 400 V                                                                                                                                           | A  | 0                 |

|                                                                          |    |                    |
|--------------------------------------------------------------------------|----|--------------------|
| Number of auxiliary contacts as normally open contact                    |    | 1                  |
| Number of auxiliary contacts as normally closed contact                  |    | 0                  |
| Ambient temperature, upper operating limit                               | °C | 55                 |
| Temperature compensated overload protection                              |    | Yes                |
| Release class                                                            |    | CLASS 10 A         |
| Type of electrical connection of main circuit                            |    | Plug-in connection |
| Type of electrical connection for auxiliary- and control current circuit |    | Plug-in connection |
| Rail mounting possible                                                   |    | No                 |
| With transformer                                                         |    | No                 |
| 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)                                                |    | IP65               |
| 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                      |    | 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 other bus systems                                |    | No                 |
| Width                                                                    | mm | 220                |
| Height                                                                   | mm | 270                |
| Depth                                                                    | mm | 120                |