

Reversing starter, 6.6 A, Sensor input 2, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2



**Part no. RAM05-W200A31-4120S1
199080**

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| Product name | Eaton Moeller® series Rapid Link Reversing starter |
| Part no. | RAM05-W200A31-4120S1 |
| EAN | 4015081971381 |
| Product Length/Depth | 120 millimetre |
| Product height | 270 millimetre |
| Product width | 220 millimetre |
| Product weight | 1.63 kilogram |
| Certifications | CCC UL 60947-4-2 CE UL approval RoHS IEC/EN 60947-4-2 |
| 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: drivesConnect mobile (App) Diagnostics and reset on device and via AS-Interface Parameterization: Keypad Parameterization: drivesConnect Parameterization: Fieldbus |
| Fitted with: | Key switch position HAND 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 Electronic motor protection Thermo-click Short-circuit release |
| Functions | External reset possible Temperature compensated overload protection |
| Class | CLASS 10 A |
| Degree of protection | IP65 NEMA 12 |
| 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 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) AC voltage |
| Type | Reversing starter |
| Voltage type | DC |
| Mounting position | Vertical |

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| 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 Resistance: 6 Hz, Amplitude 0.15 mm Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: According to IEC/EN 60068-2-6 |
| Altitude | | Above 1000 m with 1 % performance reduction per 100 m Max. 1000 m Max. 2000 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 In accordance with IEC/EN 50178 |
| 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 | | 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 | | 480 V AC, 3-phase 400 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 |
| 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) | | 24 V DC (-15 %/+20 %, external via AS-Interface® plug) |
| Connection | | Connections pluggable in power section |
| 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 |
| Number of auxiliary contacts (normally closed contacts) | | 0 |

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| Number of auxiliary contacts (normally open contacts) | | 0 |
| 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

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| 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 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 | 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 Ie | 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 | | 0 |
| 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 |

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| 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 |