## DATASHEET - RAM05-D204A32-4120S1

DOL starter, 6.6 A, Sensor input 2, 400/480 V AC, AS-Interface  $\ensuremath{^{\ensuremath{\mathfrak{B}}}}$  , S-7.A.E. for 62 modules, HAN Q4/2



Part no.

RAM05-D204A32-4120S1 199067

Product name       Product name       Product NameS D200422-412051         Park Number 200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D200422-412051       Product NameS D200422-412051       Product NameS D200422-412051         Product NameS D2004222-412051       Product NameS D2004222-412051       <		
ENIONISTINDPoder heighConstrainedPoder heighConstrainedPoder keighConstrainedPoder keighSilleliganPoder keighS	Product name	Eaton Moeller® series Rapid Link DOL starter
Product Length/OpthImage: Content with the second of the seco	Part no.	RAM05-D204A32-4120S1
Padact heigh     20 millimete       Product vielph     20 millimete       Product vielph     20 millimete       Certifications     1000000000000000000000000000000000000	EAN	4015081971251
Product weight     132 billimetre       Product weight     1.63 billigram       Derifications     1.63 billigram       Product Trademann     Image of the population of the populatio	Product Length/Depth	120 millimetre
Product weight     Ide Stallagram       Derdifications     LU B38-1-2 UL approval       Product Type     Page Stallagram       Product Type     Page Stallagram <t< td=""><td>Product height</td><td>270 millimetre</td></t<>	Product height	270 millimetre
Berthisations     Image: Special system of the special system	Product width	220 millimetre
Erricitations     Image: Second	Product weight	1.63 kilogram
Product Yup       DL starter         Product Yup       None         Catalog Notes       Product Yup         Product Yup       Product Yup </td <td>Certifications</td> <td>IEC/EN 60947-4-2 UL approval CCC RoHS</td>	Certifications	IEC/EN 60947-4-2 UL approval CCC RoHS
Product Sub Type       None         Catalog Notes       Assigned motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for normal internally and externally wentilated 4 point, the sagined motor rating: for neutron device and via A sint for a sagined motor rating: for neutron device and via A sint for a sector for device and via A sint for a sint for up in A in First Sint for creating into the sagined motor rating: for an using operation Area went has been for first Sint for creating the sagined motor rating: for an using portation of motors with mechanical brake External researce possible and for the same possible and for the same possible for an using portation of motors with mechanical brake External researce possible for an using portation of motors with mechanical brake External researce possible for a same possible for an using portation of the same possible for the same possame possible for the same possible for the sam	Product Tradename	Rapid Link
Catalog Note:     Assigned motor rating: for normal internally and externally ventilated Apole, the asynchronous with 100 prin at 50 Hz or 1800 min at 00 Hz       Fotares     Parametrization: relobus       Fotares     Parametrization: relobus       Parametrization: relobus     Parametriza	Product Type	DOL starter
Functions	Product Sub Type	None
Parameterization Parameterization instruction Biagnostics and voice and via AS-Interface Parameterization: KeypadFited with:Staff SFuted with:Staff SFuted with:Staff SFuted with:Staff SFunctionsStaff S<	Catalog Notes	Assigned motor rating: for normal internally and externally ventilated 4 pole, thr phase asynchronous motors with 1500 rpm at 50 Hz or 1800 min at 60 Hz
Interstand       Interstand <td>Features</td> <td>Parameterization: Fieldbus Parameterization: drivesConnect mobile (App) Diagnostics and reset on device and via AS-Interface</td>	Features	Parameterization: Fieldbus Parameterization: drivesConnect mobile (App) Diagnostics and reset on device and via AS-Interface
Interpretation         External reset possible mercature compensated overload protection           Class         CLASS 10 A           Degree of protection         MEMA 12 P66           Electromagnetic compatibility         Class A           Lifespan, electrical         0,000,000 operations (at AC-3)           Lifespan, mechanical         0,000,000 operations (at AC-3)           Noted         0,000,000 operations (at AC-3)           Overload release current setting - min         0,3A           Overload release current setting - min         6.6 A           Overload release current setting - min         Starter           Overload release current setting - min         6.6 A           Product category         Motor starter           Protocol         Motor starter           Protocol         Schertrace profile cable: S-7.4 for 62 modules S/SI           Rate impulse withstand voltage (Uimp)         Woot starter           System configuration type         Goot V           System configuration type         Covorage           Type         Out starter	Fitted with:	Thermistor monitoring PTC Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Key switch position AUTO Key switch position HAND Electronic motor protection Key switch position OFF/RESET
Degree of protection       MEMA 12         Electromagnetic compatibility       Class A         Lifespan, electrical       MO0000 Operations (at AC-3)         Lifespan, mechanical       MO0000 Operations (at AC-3)         Model       Diverstarter         Overload release current setting - main       MEMA 12         Product category       Motor starter         Product category       Motor starter         Protocl       MO0 V         Rated impulse withstand voltage (Uimp)       MO0 V         System configuration type       Good V         System configuration type       Motor starter         Type       UI starter	Functions	External reset possible
IndexIndexIndexElectromagnetic compatibilityClass ALifespan, electrical0.000,000 perations (at AC-3)Lifespan, mechanical0.000,000 perations (at AC-3)ModelDirect starterOverload release current setting - min0.00Overload release current setting - max0.00Overload release current setting - max0.00Product category0.00Product category0.00Product category0.00Not starter0.00Rated impulse withstand voltage (Uimp)0.00System configuration type0.00System configuration type0.00Type0.00 LastrerDescrete setting - max0.00 Lastrer	Class	CLASS 10 A
Lifespan, electrical       6000,000 Operations (at AC-3)         Lifespan, mechanical       10,000,000 Operations (at AC-3)         Model       Direct starter         Overload release current setting - min       0.3 A         Overload release current setting - max       6.6 A         Overload release current setting - max       6.6 A         Product category       Model         Product category       Motor starter         Protocol       Motor starter         Rated impulse withstand voltage (Uimp)       Motor Starter         System configuration type       Good Operations (at AC-3)         Type       Words Starter	Degree of protection	
Lifespan, mechanical       10,000,000 Operations (at AC-3)         Model       Direct starter         Overload release current setting - min       0.3 A         Overload release current setting - max       6.6 A         Overload release current setting - max       11         Product category       Motor starter         Product category       Motor starter         Protocol       Solon Operations (at AC-3)         Rated impulse withstand voltage (Uimp)       Motor starter         System configuration type       Covolage         Type       Covolage         Type       Dot starter	Electromagnetic compatibility	Class A
Model       Direct starter         Overload release current setting - max       0.3 A         Overload release current setting - max       6.6 A         Overload release current setting - max       Model         Product category       Motor starter         Product category       Motor starter         Protocol       Motor starter         Rated impulse withstand voltage (Uimp)       Motor starter         System configuration type       Motor Starter         Type       Motor Starter         Type       Dout starter	Lifespan, electrical	10,000,000 Operations (at AC-3)
Number Overload release current setting - maxNumber overload release current setting - maxProtocolNumber overload release current setting - maxNumber overload release current setting - maxNumber 	Lifespan, mechanical	10,000,000 Operations (at AC-3)
Overload release current setting - max66 AOverload release current setting - max6.6 AOverload release current setting - maxIIProtocolMotor starterProtocolS-Interface profile cable: S-7.4 for 62 modules S1Rated impulse withstand voltage (Uimp)400 VSystem configuration typeSol SolTypeIIIProtocolContage ContageContage Contage ContageContage Contage Contage ContageContage ContageContage Contage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage ContageContage Co	Model	Direct starter
Overvoltage categoryIIIProduct categoryMotor starterProtocolAS-Interface profile cable: S-7.4 for 62 modules ASIRated impulse withstand voltage (Uimp)MOO VSystem configuration typeColtage canter-point earthed star network (TN-S network) phase-earthed AC supply systems are not permitted.TypeOL starter	Overload release current setting - min	0.3 A
Product categoryMotor starterProtocolAS-Interface profile cable: S-7.4 for 62 modules ASIRated impulse withstand voltage (Uimp)4000 VSystem configuration typeColtage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.TypeOL starter	Overload release current setting - max	6.6 A
ProtocolAS-Interface profile cable: S-7.4 for 62 modules ASIRated impulse withstand voltage (Uimp)4000 VSystem configuration typeCV oltage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.TypeOL starter	Overvoltage category	
ASI       Rated impulse withstand voltage (Uimp)     ASI       System configuration type     4000 V       System configuration type     ASI       Type     DL starter	Product category	Motor starter
System configuration type     AC voltage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.       Type     DOL starter	Protocol	
Type     Center-point earthed star network (TN-S network)       Phase-earthed AC supply systems are not permitted.       DOL starter	Rated impulse withstand voltage (Uimp)	4000 V
· · · · · · · · · · · · · · · · · · ·	System configuration type	Center-point earthed star network (TN-S network)
Voltage type DC	Туре	DOL 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 Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: 6 Hz, Amplitude 0.15 mm Resistance: According to IEC/EN 60068-2-6
Altitude	Max. 1000 m Max. 2000 m 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	In accordance with IEC/EN 50178 < 95 %, no condensation
Current limitation	Adjustable, motor, main circuit 0.3 - 6.6 A, 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 (le) at 150% overload Rated operational current (le) at AC-3, 380 V, 400 V, 415 V	6.6 A 6.6 A
Rated operational current (le) at AC-3, 360 V, 400 V, 415 V 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	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)	24 V DC (-15 %/+20 %, external via AS-Interface® plug) 400/480 V AC (external brake 50/60 Hz)
Connection	Connections pluggable in power section
Interfaces	Number of slave addresses: 62 (AS-Interface®)

	Specification: S-7.A.E. (AS-Interface®) Max. total power consumption from AS-Interface® power supply unit (30 V): 190 mA
Number of auxiliary contacts (normally closed contacts)	
Number of auxiliary contacts (normally open contacts)	
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		Direct online starter (DOL)
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 le	А	6.6
Rated operation current at AC-3, 400 V	А	6.6
Overload release current setting	А	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		0
Number of auxiliary contacts as normally closed contact		0

Ambient temperature, upper operating limit	°C	
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		1
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	m 220
Height	mm	n 270
Depth	mm	n 120