



Rapid Link DOL starter up to 6, 6 A

Part no. RAMO-D04AI1S-C320S1
Article no. 169799
Catalog No. RAMO-D04AI1S-C320S1

Delivery program

Product range			motor starter
Basic function			DOL starters
Description			integrated PTC thermistor monitoring and Thermoclick with safe isolation Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Connections pluggable in power section Connection of supply voltage via adapter cable on round or flexible busbar junction Diagnostics and reset on device and via AS-Interface with AUTO - OFF/RESET - HAND key switches with electronic motor protection for assigned motor rating from 0.09 to 3 kW (400 V)
Repair switch			without manual override switch
Rated operational voltage	U_e		400 V AC, 3-phase
Output voltage with V_e	U_2		400 V AC, 3-phase
Mains voltage (50/60Hz)	U_{LN}	V	380 (-10%) - 480 (+10%)
At 150% overload	I_e	A	6.6
Control voltage external brake (50/60 Hz)		V AC	400
Mains voltage (50/60Hz)	U_{LN}	V	380 (-10%) - 480 (+10%)
assigned motor rating P			
Note			at 400 V, 50 Hz
150 % Overload	P	kW	0,09 - 3
Note			at 440 - 480 V, 60 Hz
150 % Overload	P	HP	0,125 - 3
Note			for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm^{-1} at 50 Hz or 1800 min^{-1} at 60 Hz
AS-Interface profile cable			S-7.4 for 31 modules
Instructions for actuation of motors with mechanical brake			

Technical data

General

Standards			IEC/EN 60947-4-2 IEC/EN 60947-5-1 IEC/EN 61000-6-2 IEC/EN 61000-6-4 Directive 2002/95/EG (RoHS) CE approval
Climatic proofing	ρ_w	%	< 95%, non-condensing IEC/EN 50178
Ambient temperature			
Storage	θ	°C	-30 - +70
Overvoltage category			III
Rated impulse withstand voltage	U_{imp}	kV	4
Radio interference level			
Environment (EMC)			Device class A
maximum motor cable length	l	m	10
Mechanical shock resistance		g	1000 shocks per shaft, semi-sinusoidal 15 g/11 ms IEC/EN 60068-2-27
Vibration			Oscillation frequency: 10 - 150 Hz Amplitude 0.15 mm: 6 Hz Amplitude transition frequency on acceleration: 57 Hz IEC/EN 60068-2-6
Mounting position			Vertical
Altitude		m	0 - 1000 m above sea level above 1000 m with 1 % performance reduction per 100 m max. 2000 m
Degree of Protection			IP65 IEC/EN 60529

Main circuit

Supply			
Rated operational voltage	U_e		400 V AC, 3-phase
Mains voltage (50/60Hz)	U_{LN}	V	380 (-10%) - 480 (+10%)
Input current (150% overload)	I_{LN}	A	6.6
System configuration			AC voltage Center-point earthed star network (TN-S network) Phase-earthed AC supply systems are not permitted.
Supply frequency	f_{LN}	Hz	50/60
Frequency range	f_{LN}	Hz	47 - 63 Hz ($\pm 0\%$)
Mains switch-on frequency			Maximum of one time every 60 seconds
Rated conditional short-circuit current	I_q	kA	< 10
Short-circuit protection for output circuits, external			Type 1 coordination via the power bus' feeder unit
Power section			
Function			DOL starter with thyristors and bypass contacts, 2-phase
On-delay	t_{0N}	ms	20 - 35
Off-delay	t_{0FF}	ms	20 - 35
Lifespan, mechanical	Operations		AC3: > 10.000.000
Lifespan, electrical	Operations		AC3: > 10.000.000
Overload cycle			AC-53a
Output voltage with V_e	U_2		400 V AC, 3-phase
Output Frequency	f_2	Hz	= f_{LN}
Rated operational current			
At 150% overload	I_e	A	6.6
Motor current limit	I	A	0.3 - 6.6 adjustable
Fitted with			without manual override switch
Motor feeder			
Note			for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm^{-1} at 50 Hz or 1800 min^{-1} at 60 Hz
Note			at 400 V, 50 Hz
Note			at 440 - 480 V, 60 Hz
Actuator for external motor brake			
Braking voltage	U	V	400 V AC -15% / +10%
Braking current	I	A	$\leq 0.6 \text{ A}$ (max. 6 A for 120 ms)
Control section			
External control voltage	U_c	V	24 V DC - 15% / + 20% via AS-Interface® plug
AS-Interface®			max. total power consumption from AS-Interface® power supply unit (30 V): 250 mA Specification: S-7.4 Number of slave addresses: 31

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-10
Operating ambient temperature max.		°C	55

Technical data ETIM 6.0

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@ss8.1-27-37-09-05 [AJZ718010])			
Kind of motor starter			Direct starter
With short-circuit release			Yes
Rated control supply voltage U_s at AC 50HZ		V	0 - 400
Rated control supply voltage U_s at AC 60HZ		V	0 - 400
Rated control supply voltage U_s at DC		V	0 - 0
Voltage type for actuating			AC

Rated operation power at AC-3, 230 V, 3-phase		kW	
Rated operation power at AC-3, 400 V		kW	3
Rated power, 460 V, 60 Hz, 3-phase		kW	
Rated power, 575 V, 60 Hz, 3-phase		kW	
Rated operation current I _e		A	6.6
Rated operation current at AC-3, 400 V		A	
Overload release current setting		A	0.3 - 6.6
Rated conditional short-circuit current, type 1, 480 Y/277 V		A	10000
Rated conditional short-circuit current, type 1, 600 Y/347 V		A	
Rated conditional short-circuit current, type 2, 230 V		A	
Rated conditional short-circuit current, type 2, 400 V		A	
Number of auxiliary contacts as normally open contact			
Number of auxiliary contacts as normally closed contact			
Ambient temperature, upper operating limit		°C	
Temperature compensated overload protection			Yes
Release class			
Type of electrical connection of main circuit			-
Type of electrical connection for auxiliary- and control current circuit			-
Rail mounting possible			No
Degree of protection (IP)			IP65
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

Additional product information (links)

IL03406019Z Rapid Link: Motor Control Unit	
IL03406019Z Rapid Link: Motor Control Unit	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03406019Z2015_07.pdf
MN03406003Z Rapid Link 4.0	
MN03406003Z Rapid Link 4.0 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03406003Z_DE.pdf
MN03406003Z Rapid Link 4.0 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03406003Z_EN.pdf
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