SIEMENS

Data sheet

3RM1101-1AA04

MOTOR STARTER 3RM1 SIRIUS DIRECT STARTER SAFETY 500 V; 0,1 - 0,5 A; 24 V DC SCREW-TYPE

CONNECTION SYSTEM



Figure similar

General technical data:		
product brand name		SIRIUS
Product designation		Motor starter
Design of the product		with electronic overload protection and safety-related shutdown
Trip class		CLASS 10A
Protection class IP		IP20
Suitability for operation Device connector 3ZY12	-	Yes
Product function Intrinsic device protection	-	Yes
Type of the motor protection		solid-state
Product function Adjustable current limitation		Yes
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
 during operation 	°C	-25 +60
 during transport 	°C	-40 +70
 during storage 	°C	-40 +70
Shock resistance	-	6g / 11 ms
Vibration resistance		1 6 Hz, 15 mm; 20 m/s², 500 Hz
Surge voltage resistance Rated value	kV	6
Insulation voltage Rated value	V	500
Mechanical service life (switching cycles) typical		30 000 000
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to burst acc. to IEC 61000-4-4		3 kV / 5 kHz

Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6		10 V
Electrostatic discharge acc. to IEC 61000-4-2	_	6 kV contact discharge / 8 kV air discharge
Field-bound HF-interference emission acc. to CISPR11	_	Class B for the domestic, business and commercial environments
Conducted HF-interference emissions acc. to CISPR11		Class B for the domestic, business and commercial environments
maximum permissible voltage for safe isolation		
 between main and auxiliary circuit 	V	500
 between control and auxiliary circuit 	V	250
Equipment marking acc. to DIN 40719 extended	_	Q
according to IEC 204-2 acc. to IEC 750		
Equipment marking acc. to DIN EN 61346-2		Q
Safety related data:		
Safety Integrity Level (SIL) acc. to IEC 61508		SIL3
Performance level (PL) acc. to EN ISO 13849-1		e
Category acc. to EN ISO 13849-1	_	4
T1 value for proof test interval or service life acc. to IEC 61508	У	20
PFHD with high demand rate acc. to EN 62061	1/h	0.0000002
Protection against electrical shock	-	finger-safe
Safety device type acc. to IEC 61508-2	_	Туре В
OFF-delay time with safety-related request when switched off via control inputs maximum	ms	65
OFF-delay time with safety-related request when switched off via supply voltage maximum	ms	120
Main circuit:		
Number of poles for main current circuit		3
Operating voltage Rated value maximum	V	500
Operating frequency	_	
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
Operating current with AC at 400 V Rated value	А	0.5
Minimum load in % of I_M	%	20
Active power loss typical	W	0.02
Adjustable response value current of the current- dependent overload release	A	0.1 0.5
Operating power for three-phase motors at 400 V at 50 Hz	kW	0 0.12
Operating frequency maximum	1/s	1
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage 1		

 for DC Rated value 	V	24
Operating range factor control supply voltage rated		
value		
• for DC		0.8 1.25
Control current		
• for DC		
— in standby mode	mA	13
— during operation	mA	57
— when switching on	mA	150
Input voltage at digital input		
● for signal <1>		
— for DC	V	15 30
● with signal <0>		
— for DC	V	05
Input current at digital input		
● for signal <1>		
— for DC	mA	8
● with signal <0>		
— for DC	mA	1
Switch-on delay time	ms	90 120
OFF-delay time	ms	40 55

Auxiliary circuit:		
Number of CO contacts for auxiliary contacts		1
Design of the switching contact as NO contact for signaling function		Electronic
Operating current of the auxiliary contacts		
• at AC-15 maximum	А	3
● at DC-13 maximum	А	1

Installation/ mounting/ dimensions:			
mounting position		vertical, horizontal, standing	
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail	
Width	mm	22.5	
Height	mm	100	
Depth	mm	141.6	

Connections/ Terminals:					
Type of electrical connection					
 for main current circuit 	screw-type terminals				
 for auxiliary and control current circuit 	screw-type terminals				
Type of connectable conductor cross-section for main contacts					
• solid	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)				

	 finely stranded 						
AWG conductors for main contacts Type of connectable conductor cross-section for auxiliary contacts • solid 1x (0,5 2,5 mm²), 2x (1,0 1,5 mm²) • finely stranded - with core end processing 1x (0,5 2,5 mm²), 2x (0,5 1 mm²) Type of connectable conductor cross-section for AWG conductors for auxiliary contacts 1x (0,5 2,5 mm²), 2x (0,5 1 mm²) Type of connectable conductor cross-section for AWG conductors for auxiliary contacts 1x (20 14), 2x (18 16) L ratings: Full-load current (FLA) for three-phase AC motor at 480 V Rated value A 0.5 Certificates/ approvals: For use in hazardous locations Functional Safety/Safety of Machinery Declaration of Conformity of Machinery Certificates/ ccc UL EFIEL Effect Effect Vertificates/ ccc UL Effect Effect Effect Vertificates/ ccc UL Effect Effect Effect Effect Vertificates/ ccc UL Effect	— with core e	end processing			1x (0,5 2,	,5 mm²), 2x (0,5 1,5	ō mm²)
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