



MOTOR STARTER 3RM1 SIRIUS DIRECT STARTER
500 V; 0,4-2,0 A; 110-230 V AC 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
Trip class		CLASS 10A
Protection class IP		IP20
Suitability for operation Device connector 3ZY12		No
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	4 000
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/s ² , 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		1 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		4 kV contact discharge / 8 kV air discharge
Field-bound HF-interference emission acc. to CISPR11		Class B for domestic, business and commercial environments; Class A for industrial environments at 110 V DC
Conducted HF-interference emissions acc. to CISPR11		Class B for domestic, business and commercial environments; Class A for industrial environments at 110 V DC
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 according to IEC 204-2 acc. to IEC 750		Q
Equipment marking acc. to DIN EN 61346-2		Q

Safety related data:

Protection against electrical shock		finger-safe
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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	A	2
Minimum load in % of I _M	%	20
Active power loss typical	W	0.3
Adjustable response value current of the current-dependent overload release	A	0.4 ... 2
Operating power for three-phase motors at 400 V at 50 Hz	kW	0.09 ... 0.75
Operating frequency maximum	1/s	1

Control circuit/ Control:

Type of voltage of the control supply voltage		AC/DC
Control supply voltage 1		
• for DC Rated value	V	110
• with AC		
— at 50 Hz	V	110 ... 230
— at 60 Hz	V	110 ... 230
Operating range factor control supply voltage rated value		
• for DC		0.85 ... 1.1
• with AC		
— at 50 Hz		0.85 ... 1.1

— at 60 Hz		1.1 ... 0.85
Control current		
• with AC		
— at 230 V		
— in standby mode	mA	9
— during operation	mA	22
— when switching on	mA	33
— at 110 V		
— in standby mode	mA	16
— during operation	mA	36
— when switching on	mA	55
• for DC		
— in standby mode	mA	6
— during operation	mA	30
— when switching on	mA	15
Input voltage at digital input		
• for signal <1>		
— for DC	V	79 ... 121
— with AC	V	93 ... 253
• with signal <0>		
— with AC	V	0 ... 40
— for DC	V	0 ... 40
Input current at digital input		
• for signal <1>		
— with AC at 230 V	mA	2.3
— with AC at 110 V	mA	1.1
— for DC	mA	1.5
• with signal <0>		
— with AC at 230 V	mA	0.4
— with AC at 110 V	mA	0.2
— for DC	mA	0.25
Switch-on delay time	ms	60 ... 90
OFF-delay time	ms	60 ... 90

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	A	3
• at DC-13 maximum	A	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		
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 		screw-type terminals screw-type terminals
Type of connectable conductor cross-section for main contacts		
<ul style="list-style-type: none"> • solid • finely stranded — with core end processing 		1x (0,5 ... 4 mm ²), 2x (0,5 ... 2,5 mm ²) 1x (0,5 ... 2,5 mm ²), 2x (0,5 ... 1,5 mm ²)
Type of connectable conductor cross-section for AWG conductors for main contacts		
		1x (20 ... 12), 2x (20 ... 14)
Type of connectable conductor cross-section for auxiliary contacts		
<ul style="list-style-type: none"> • solid • finely stranded — with core end processing 		1x (0,5 ... 2,5 mm ²), 2x (1,0 ... 1,5 mm ²) 1x (0,5 ... 2,5 mm ²), 2x (0,5 ... 1 mm ²)
Type of connectable conductor cross-section for AWG conductors for auxiliary contacts		
		1x (20 ... 14), 2x (18 ... 16)

UL ratings:

Full-load current (FLA) for three-phase AC motor at 480 V Rated value	A	2
yielded mechanical performance [hp]		
<ul style="list-style-type: none"> • for single-phase AC motor — at 230 V Rated value 	metric hp	0.125
<ul style="list-style-type: none"> • for three-phase AC motor — at 200/208 V Rated value — at 220/230 V Rated value — at 460/480 V Rated value 	metric hp metric hp metric hp	0.333 0.333 0.75

Certificates/ approvals:

General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 GOST	 UL		 EG-Konf.	Type Test Certificates/Test Report

Test Certificates	other	
Special Test Certificate	Environmental Confirmations	Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mf=3RM10021AA14>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RM10021AA14/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RM10021AA14&lang=en>

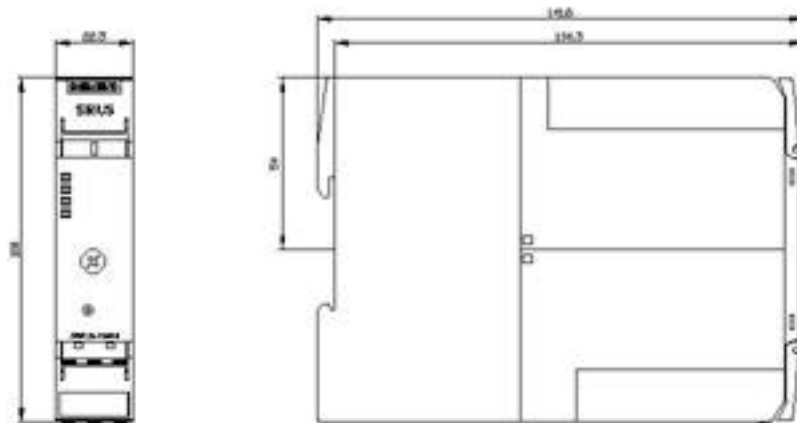
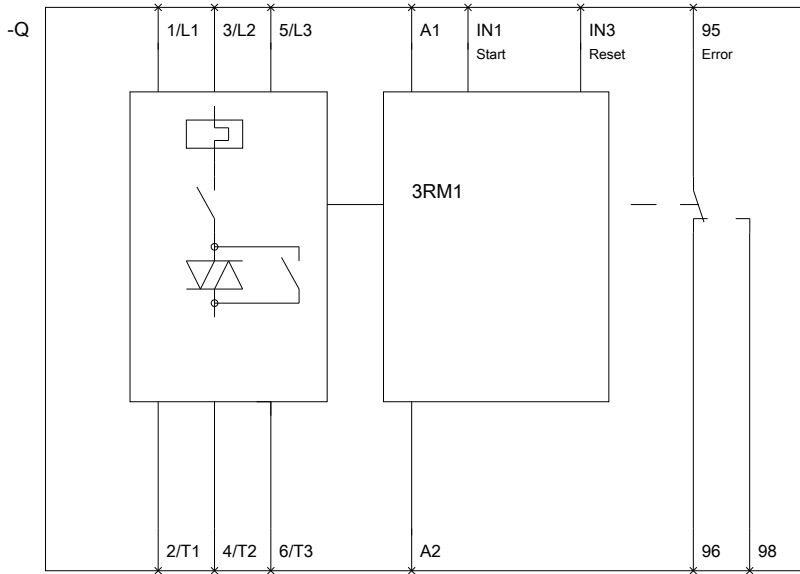


Figure similar



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