



MOTOR STARTER SIRIUS 3RM1 REVERSING STARTER  
 500 V;  
 0,4-2,0 A;  
 110-230 V AC PUSH-IN CONNECTION SYSTEM

General technical data:		
product brand name		SIRIUS
Product designation		Motor starter
Design of the product		with reversing functionality and electronic overload protection
Trip class		CLASS 10A
Protection class IP		IP20
Suitability for use / 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 a height over sea level / maximum	m	4,000
Ambient temperature		
• during operating	°C	-25 ... +60
• during transport	°C	-40 ... +70
• during storage	°C	-40 ... +70
Resistance against shock		6g / 11 ms
Resistance against vibration		1 ... 6 Hz, 15 mm; 20 m/s <sup>2</sup> , 500 Hz
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	500

<b>Mechanical operating cycles as operating time / typical</b>		30,000,000
<b>Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5</b>		1 kV
<b>Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4</b>		3 kV / 5 kHz
<b>Conducted interference as high-frequency radiation according to IEC 61000-4-6</b>		10 V
<b>Electrostatic discharge / according to IEC 61000-4-2</b>		4 kV contact discharge / 8 kV air discharge
<b>Field-bound HF-interference emission / according to CISPR11</b>		Class B for domestic, business and commercial environments; Class A for industrial environments at 110 V DC
<b>Conductor-bound HF-interference emission / according to CISPR11</b>		Class B for domestic, business and commercial environments; Class A for industrial environments at 110 V DC
<b>Maximum permissible voltage for safe disconnection</b>		
• between main circuit and auxiliary circuit	V	500
• between control and auxiliary circuit	V	250
<b>Reference code</b>		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		Q
• according to DIN EN 61346-2		Q

#### Safety related data:

<b>Protection against electrical shock</b>	finger-safe
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#### Main circuit:

<b>Number of poles / for main current circuit</b>		3
<b>Operating voltage / rated value / maximum</b>	V	500
<b>Operating frequency</b>		
• 1	Hz	50
• 2	Hz	60
<b>Operating current / at 400 V / for AC / rated value</b>	A	2
<b>Minimum load in % of I<sub>M</sub></b>	%	20
<b>Active power loss / typical</b>	W	0.3
<b>Adjustable response current</b>		
• of the current-dependent overload release	A	0.4 ... 2
<b>Service power / for three-phase servomotors / at 400 V</b>		
• at 50 Hz	kW	0.09 ... 0.75
<b>Operating cycles / maximum</b>	1/s	1

#### Control circuit/ Control:

<b>Voltage type / of control feed voltage</b>		AC/DC
<b>Control supply voltage / 1</b>		
• for DC / rated value	V	110

<ul style="list-style-type: none"> <li>• at 50 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> <li>• at 60 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> </ul>	V	110 ... 230
<ul style="list-style-type: none"> <li>• at 60 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> </ul>	V	110 ... 230
<b>Operating range factor control supply voltage rated value</b>		
<ul style="list-style-type: none"> <li>• for DC</li> </ul>		0.85 ... 1.1
<ul style="list-style-type: none"> <li>• at 50 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> </ul>		0.85 ... 1.1
<ul style="list-style-type: none"> <li>• at 60 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> </ul>		1.1 ... 0.85
<b>Control current</b>		
<ul style="list-style-type: none"> <li>• with AC <ul style="list-style-type: none"> <li>• at 230 V <ul style="list-style-type: none"> <li>• with standby operating mode</li> <li>• during operation</li> <li>• when switching on</li> </ul> </li> <li>• at 110 V <ul style="list-style-type: none"> <li>• with standby operating mode</li> <li>• during operation</li> <li>• on switching on</li> </ul> </li> </ul> </li> <li>• with DC <ul style="list-style-type: none"> <li>• in standby mode</li> <li>• during operation</li> <li>• on switching on</li> </ul> </li> </ul>	mA	9
	mA	22
	mA	33
	mA	16
	mA	36
	mA	55
	mA	6
	mA	30
	mA	15
<b>Input voltage / at the digital input</b>		
<ul style="list-style-type: none"> <li>• with signal &lt;1&gt; <ul style="list-style-type: none"> <li>• for DC</li> </ul> </li> <li>• with AC</li> </ul>	V	79 ... 121
	V	93 ... 253
<ul style="list-style-type: none"> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>• with AC</li> <li>• with DC</li> </ul> </li> </ul>	V	0 ... 40
	V	0 ... 40
<b>Input voltage / at digital input</b>		
<ul style="list-style-type: none"> <li>• with signal &lt;1&gt; <ul style="list-style-type: none"> <li>• with AC <ul style="list-style-type: none"> <li>• at 230 V</li> <li>• at 110 V</li> </ul> </li> <li>• with DC</li> </ul> </li> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>• with AC <ul style="list-style-type: none"> <li>• at 230 V</li> </ul> </li> </ul> </li> </ul>	mA	2.3
	mA	1.1
	mA	1.5
	mA	0.4

• at 110 V	mA	0.2
• with DC	mA	0.25
<b>ON-delay time</b>	ms	60 ... 90
<b>OFF-delay time</b>	ms	60 ... 90

#### Auxiliary circuit:

<b>Number of changeover contacts / for auxiliary contacts</b>		1
<b>Design of the switching contact / as make contact / for reporting function</b>		Electronic
<b>Operating current / of the auxiliary contacts</b>		
• at AC-15	A	3
• at DC-13	A	1

#### Installation/ mounting/ dimensions:

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

#### Connections/ terminals:

<b>Design of the electrical connection</b>		
• for main current circuit		PUSH-IN connection (spring-loaded connection)
• for auxiliary and control current circuit		PUSH-IN connection (spring-loaded connection)
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• solid		1x (0.5 ... 4 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm <sup>2</sup> )
• without conductor final cutting		1x (0.5 ... 4 mm <sup>2</sup> )
• for AWG conductors		1x (20 ... 12)
<b>Type of the connectable conductor cross-section</b>		
• for auxiliary contacts		
• solid		1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		1x (0,5 ... 1,0 mm <sup>2</sup> ), 2x (0,5 ... 1,0 mm <sup>2</sup> )
• without conductor final cutting		1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• for AWG conductors		1x (20 ... 16), 2x (20 ... 16)

#### UL ratings:

<b>Full-load current (FLA) / for 3-phase motor / at 480 V / rated value</b>	A	2
<b>yielded mechanical performance [hp]</b>		
<ul style="list-style-type: none"> <li>• for single-phase squirrel cage motors <ul style="list-style-type: none"> <li>• at 230 V / rated value</li> </ul> </li> <li>• for three-phase squirrel cage motors <ul style="list-style-type: none"> <li>• at 200/208 V / rated value</li> <li>• at 220/230 V / rated value</li> <li>• at 460/480 V / rated value</li> </ul> </li> </ul>	hp	0.125
	hp	0.333
	hp	0.333
	hp	0.75

#### Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates
 CCC  EAC  PGT GOST  UL UL  CE EG-Konf.		<a href="#">Type Test Certificates/Test Report</a>

#### other

[Environmental Confirmations](#)

#### Further information:

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

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

##### Industry Mall (Online ordering system)

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

##### Cax online generator

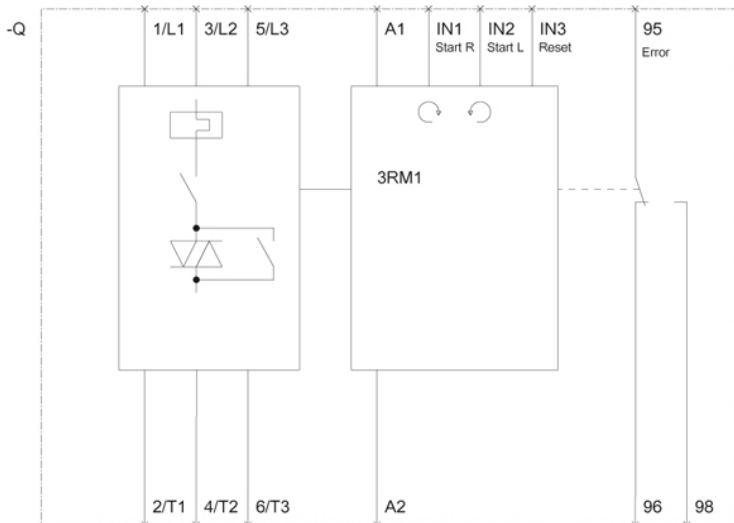
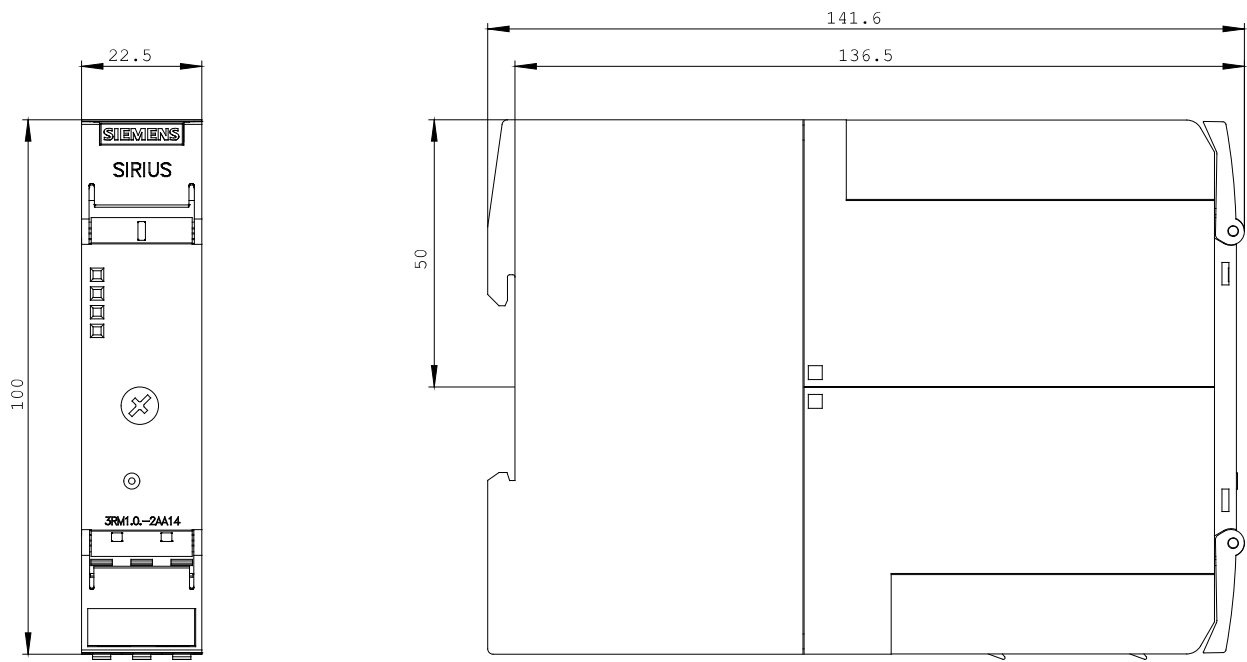
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RM1202-2AA14/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RM1202-2AA14](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RM1202-2AA14)



last change:

Jul 28, 2014