



MOTOR STARTER 3RM1 SIRIUS DIRECT STARTER 500 V;  
1,6-7,0 A;  
110-230 V AC SCREW-TYPE CONNECTION SYSTEM

### General technical data:

product designation		Motor starter
Design of the product		with electronic overload protection
Protection class IP		IP20
Suitability for use / device connector 3ZY12		No
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/s², 500 Hz
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	600
Mechanical operating cycles as operating time / typical		30,000,000
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV / 5 kHz
Conducted interference as high-frequency radiation according to IEC 61000-4-6		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

#### Safety:

**Safety device type / according to IEC 61508-2**

Type B

#### Main circuit:

<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	7
<b>Derating temperature</b>	°C	40
<b>Minimum load in % of I<sub>M</sub></b>	%	20
<b>Active power loss / typical</b>	W	3.3
<b>Adjustable response current</b>		
• of the current-dependent overload release	A	1.6 ... 7
<b>Service power / for three-phase servomotors / at 400 V</b>		
• at 50 Hz	kW	0.55 ... 3
<b>Operating cycles / maximum</b>	1/s	1

#### Control circuit:

<b>Type of voltage / of the controlled supply voltage</b>		AC/DC
<b>Control supply voltage / 1</b>		
• for DC / rated value	V	110
• at 50 Hz		
• for AC	V	110 ... 230
• at 60 Hz		
• for AC	V	110 ... 230
<b>Operating range factor control supply voltage rated value</b>		
• for DC		0.85 ... 1.1
• at 50 Hz		
• for AC		0.85 ... 1.1
<b>Control current</b>	A	0.05
<b>Input voltage / at the digital input / with signal &lt;1&gt;</b>		
• for DC	V	93 ... 121
• with AC	V	93 ... 253

<b>Input current / at the digital input / for signal &lt;1&gt; / typical</b>	A	0.0020
<b>Start-up delay time</b>	ms	80
<b>Switch-off delay time</b>	ms	90

<b>Installation/mounting/dimensions:</b>		
<b>mounting position</b>		vertical, horizontal
<b>Width</b>	mm	22.5
<b>Height</b>	mm	100
<b>Depth</b>	mm	141.6

<b>Connections:</b>		
<b>Design of the electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors</li> </ul>		1x (0.2 ... 4 mm <sup>2</sup> ), 2x (0.2 ... 2.5 mm <sup>2</sup> )  1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )  1x (20 ... 12), 2x (20 ... 14)
<b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors</li> </ul>		  1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> )  1x (20 ... 14), 2x (20 ... 16)

<b>UL ratings:</b>		
<b>Operating current (FLA) / for three-phase squirrel cage motors / at 480 V / rated value</b>	A	6.1
<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 110/120 V / rated value</li> <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>	        	        

<b>Certificates/approvals:</b>
--------------------------------

**General Product Approval****Declaration of  
Conformity****Test Certificates**

[Type Test  
Certificates/Test  
Report](#)

**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**

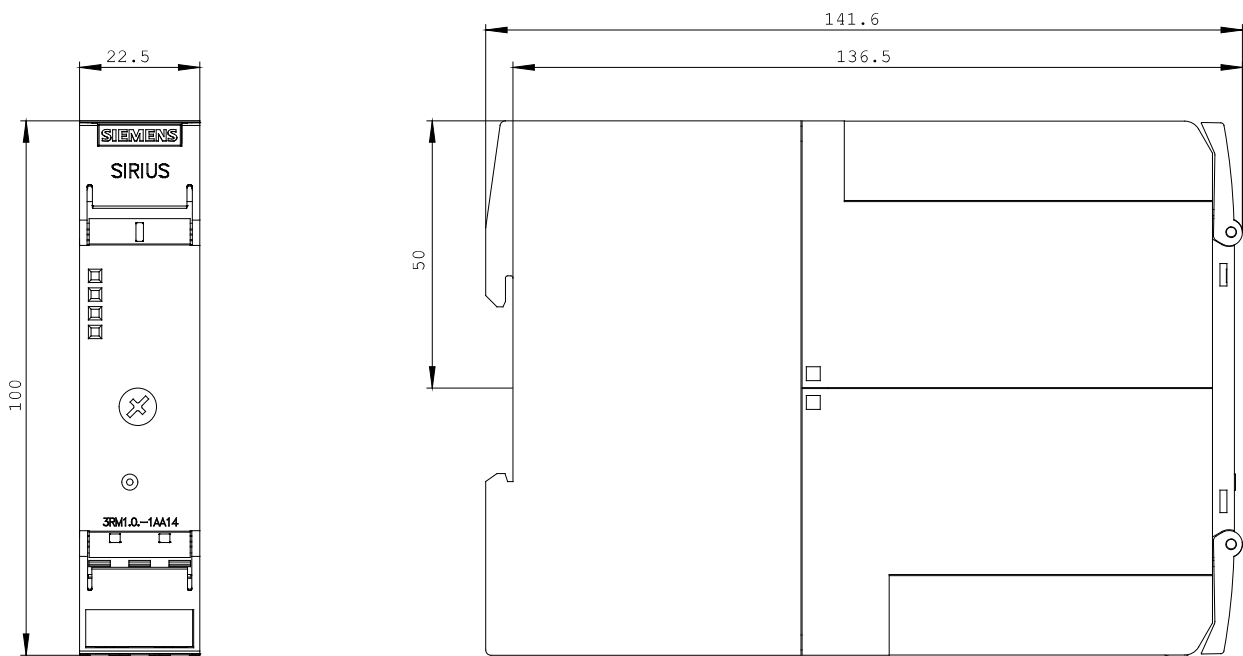
<http://www.siemens.com/cax>

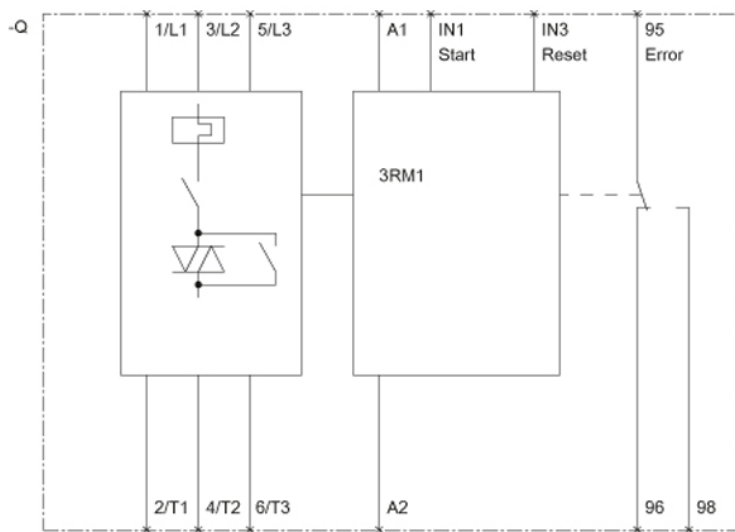
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RM1007-1AA14/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RM1007-1AA14](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RM1007-1AA14)





last change:

Mar 11, 2013