



MOTOR STARTER SIRIUS 3RM1 REVERSING STARTER 500 V;  
0,1-0,5 A; 110-230 V AC PUSH-IN CONNECTION SYSTEM

Figure similar

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 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	4 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during transport	-40 ... +70 °C
• during storage	-40 ... +70 °C
Shock resistance	6g / 11 ms
Vibration resistance	1 ... 6 Hz, 15 mm; 20 m/s <sup>2</sup> , 500 Hz
Surge voltage resistance Rated value	6 kV
Insulation voltage Rated value	500 V
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	500 V
• between control and auxiliary circuit	250 V
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	500 V
Operating frequency	
• 1 Rated value	50 Hz
• 2 Rated value	60 Hz
Minimum load [% of IM]	20 %
Active power loss typical	0.02 W
Adjustable response value current of the current-dependent overload release	0.1 ... 0.5 A
Operating power for three-phase motors at 400 V at 50 Hz	0 ... 0.12 kW
Operating frequency maximum	1 1/s

#### Control circuit/ Control:

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

<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>— in standby mode</li> <li>— during operation</li> <li>— when switching on</li> </ul> </li> <li>— at 110 V <ul style="list-style-type: none"> <li>— in standby mode</li> <li>— during operation</li> <li>— when switching on</li> </ul> </li> </ul> </li> <li>• for DC <ul style="list-style-type: none"> <li>— in standby mode</li> <li>— during operation</li> <li>— when switching on</li> </ul> </li> </ul>	<p>9 mA</p> <p>22 mA</p> <p>33 mA</p> <p>16 mA</p> <p>36 mA</p> <p>55 mA</p> <p>6 mA</p> <p>30 mA</p> <p>15 mA</p>
<b>Input voltage at digital input</b>	
<ul style="list-style-type: none"> <li>• for signal &lt;1&gt; <ul style="list-style-type: none"> <li>— for DC</li> <li>— with AC</li> </ul> </li> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>— with AC</li> <li>— for DC</li> </ul> </li> </ul>	<p>79 ... 121 V</p> <p>93 ... 253 V</p> <p>0 ... 40 V</p> <p>0 ... 40 V</p>
<b>Input current at digital input</b>	
<ul style="list-style-type: none"> <li>• for signal &lt;1&gt; <ul style="list-style-type: none"> <li>— with AC at 230 V</li> <li>— with AC at 110 V</li> <li>— for DC</li> </ul> </li> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>— with AC at 230 V</li> <li>— with AC at 110 V</li> <li>— for DC</li> </ul> </li> </ul>	<p>2.3 mA</p> <p>1.1 mA</p> <p>1.5 mA</p> <p>0.4 mA</p> <p>0.2 mA</p> <p>0.25 mA</p>
<b>Switch-on delay time</b>	60 ... 90 ms
<b>OFF-delay time</b>	60 ... 90 ms

Auxiliary circuit:	
<b>Number of CO contacts for auxiliary contacts</b>	1
<b>Design of the switching contact as NO contact for signaling function</b>	Electronic
<b>Operating current of the auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>• at AC-15 maximum</li> <li>• at DC-13 maximum</li> </ul>	<p>3 A</p> <p>1 A</p>

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

Width	22.5 mm
Height	100 mm
Depth	141.6 mm

#### Connections/ Terminals:

<b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>	PUSH-IN connection (spring-loaded connection) PUSH-IN connection (spring-loaded connection)
<b>Type of connectable conductor cross-section for main contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded             <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> )  1x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (0.5 ... 4 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors for main contacts</b>	1x (20 ... 12)
<b>Type of connectable conductor cross-section for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded             <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> </ul>	1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )  1x (0,5 ... 1,0 mm <sup>2</sup> ), 2x (0,5 ... 1,0 mm <sup>2</sup> ) 1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors for auxiliary contacts</b>	1x (20 ... 16), 2x (20 ... 16)

#### UL ratings:

Full-load current (FLA) for three-phase AC motor at 480 V Rated value	0.5 A
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#### Certificates/ approvals:

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

Test Certificates	other
<a href="#">Special Test Certificate</a>	<a href="#">Environmental Confirmations</a>
	<a href="#">Confirmation</a>

## 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

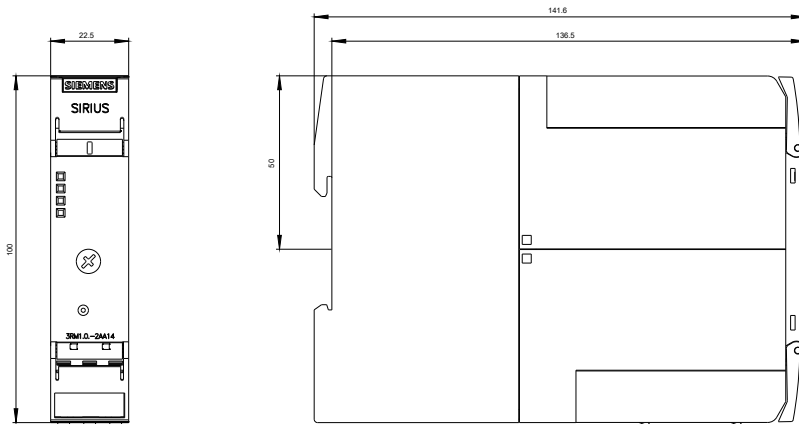
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RM12012AA14>

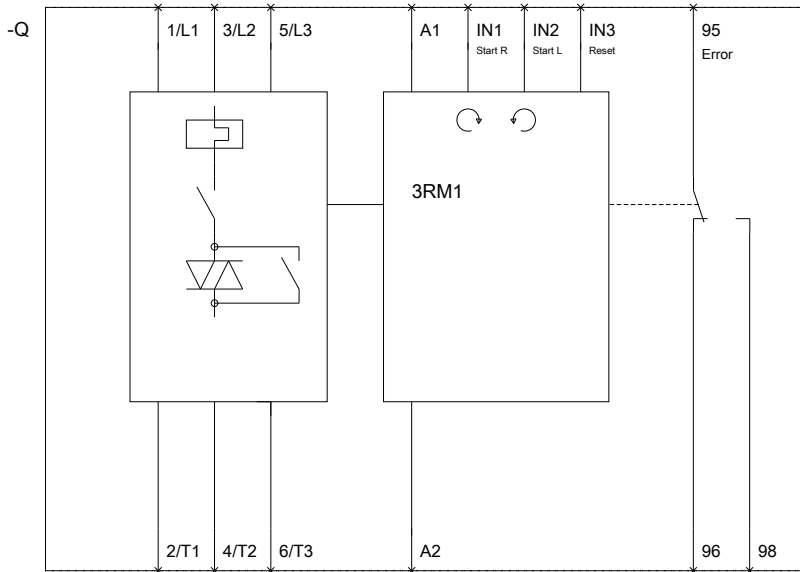
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RM12012AA14>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RM12012AA14&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RM12012AA14&lang=en)





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