



MOTOR STARTER SIRIUS 3RM1 REVERSING STARTER SAFETY 500 V; 1,6 - 7,0 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 reversing functionality and 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	2 000 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	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	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:

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	20 y
PFHD with high demand rate acc. to EN 62061	0.00000002 1/h
Protection against electrical shock	finger-safe
Safety device type acc. to IEC 61508-2	Type B
OFF-delay time with safety-related request when switched off via control inputs maximum	65 ms
OFF-delay time with safety-related request when switched off via supply voltage maximum	120 ms

#### 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
Derating temperature	40 °C
Minimum load [% of IM]	20 %
Active power loss typical	3.4 W
Adjustable response value current of the current-dependent overload release	1.6 ... 7 A
Operating power for three-phase motors at 400 V at 50 Hz	0.55 ... 3 kW
Operating frequency maximum	1 1/s

#### Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage 1	

<ul style="list-style-type: none"> <li>• for DC Rated value</li> </ul>	24 V
<b>Operating range factor control supply voltage rated value</b>	
<ul style="list-style-type: none"> <li>• for DC</li> </ul>	0.8 ... 1.25
<b>Control current</b>	
<ul style="list-style-type: none"> <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>	13 mA 57 mA 150 mA
<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> </ul> </li> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>— for DC</li> </ul> </li> </ul>	15 ... 30 V 0 ... 5 V
<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>— for DC</li> </ul> </li> <li>• with signal &lt;0&gt; <ul style="list-style-type: none"> <li>— for DC</li> </ul> </li> </ul>	8 mA 1 mA
<b>Switch-on delay time</b>	90 ... 120 ms
<b>OFF-delay time</b>	40 ... 55 ms

<b>Auxiliary circuit:</b>	
<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>	3 A 1 A

<b>Installation/ mounting/ dimensions:</b>	
<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>	22.5 mm
<b>Height</b>	100 mm
<b>Depth</b>	141.6 mm






<b>Connections/ Terminals:</b>	
<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>	screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-section for main contacts</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0,5 ... 4 mm <sup>2</sup> ), 2x (0,5 ... 2,5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>finely stranded <ul style="list-style-type: none"> <li>— with core end processing</li> </ul> </li> </ul>	1x (0,5 ... 2,5 mm <sup>2</sup> ), 2x (0,5 ... 1,5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors for main contacts</b>	1x (20 ... 12), 2x (20 ... 14)
<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> </ul> </li> </ul>	1x (0,5 ... 2,5 mm <sup>2</sup> ), 2x (1,0 ... 1,5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors for auxiliary contacts</b>	1x (20 ... 14), 2x (18 ... 16)

**UL ratings:**

<b>Full-load current (FLA) for three-phase AC motor at 480 V Rated value</b>	6.1 A
<b>yielded mechanical performance [hp]</b> <ul style="list-style-type: none"> <li>for single-phase AC motor <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 AC motor <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>	0.25 hp 0.5 hp  1 hp 1.5 hp 3 hp

**Certificates/ approvals:**

<b>General Product Approval</b>	<b>For use in hazardous locations</b>	<b>Functional Safety/Safety of Machinery</b>	<b>Declaration of Conformity</b>
 CCC	 UL		 ATEX
		<a href="#">Type Examination</a>	 EG-Konf.

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

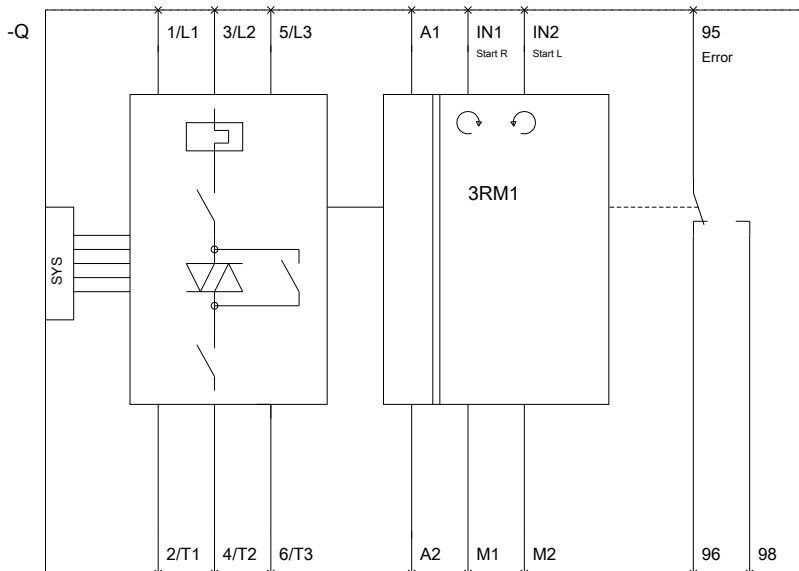
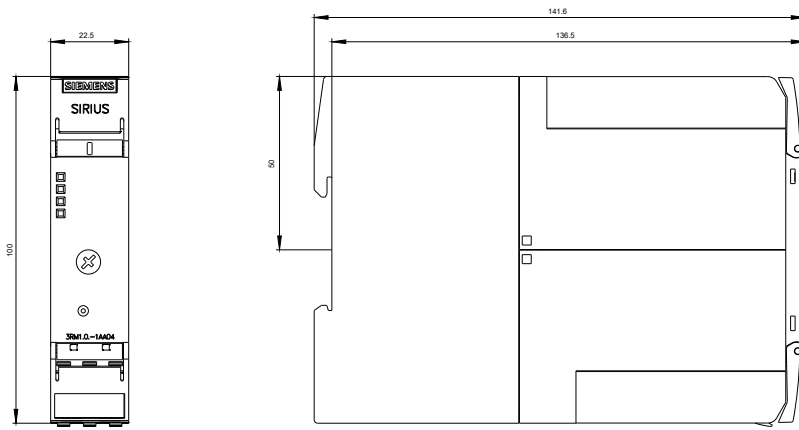
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RM13071AA04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RM13071AA04>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RM13071AA04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RM13071AA04&lang=en)



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