

SIRIUS SOFT STARTER, S12, 248 A, 200 HP/460 V, 50 DEG., 200-460 V AC, 115 V AC, CAGE CLAMP TERMINALS



## General technical data

<b>product brandname</b>		SIRIUS
<ul style="list-style-type: none"> <li>• Product equipment Integrated bypass contact system</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Product feature Thyristors</li> </ul>		Yes
<b>Product function</b>		
<ul style="list-style-type: none"> <li>• Intrinsic device protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• motor overload protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Evaluation of thermistor motor protection</li> </ul>		No
<ul style="list-style-type: none"> <li>• External reset</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Adjustable current limitation</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Inside-delta circuit</li> </ul>		No
<b>Product component Motor brake output</b>		No
<b>Equipment marking acc. to DIN EN 61346-2</b>		Q
<b>Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>		G

## Power Electronics

<b>Operating current</b>		
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• at 40 °C rated value	A	280
• at 50 °C rated value	A	248
• at 60 °C rated value	A	215
<b>Mechanical power output for three-phase motors</b>		
• at 230 V — at standard circuit at 40 °C rated value	W	90 000
• at 400 V — at standard circuit at 40 °C rated value	W	160 000
<b>Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	75
Operating frequency rated value	Hz	50 ... 60
<b>Relative negative tolerance of the operating frequency</b>	%	-10
<b>Relative positive tolerance of the operating frequency</b>	%	10
<b>Operating voltage at standard circuit rated value</b>	V	200 ... 460
<b>Relative negative tolerance of the operating voltage at standard circuit</b>	%	-15
<b>Relative positive tolerance of the operating voltage at standard circuit</b>	%	10
<b>Minimum load [% of IM]</b>	%	20
<b>Adjustable motor current for motor overload protection minimum rated value</b>	A	130
<b>Continuous operating current [% of I<sub>e</sub>] at 40 °C</b>	%	115
<b>Power loss [W] at operating current at 40 °C during operation typical</b>	W	90

#### Control electronics

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage frequency 1 rated value</b>	Hz	50
<b>Control supply voltage frequency 2 rated value</b>	Hz	60
<b>Relative negative tolerance of the control supply voltage frequency</b>	%	-10
<b>Relative positive tolerance of the control supply voltage frequency</b>	%	10
<b>Control supply voltage 1 at AC</b>		
• at 50 Hz rated value	V	115
• at 60 Hz rated value	V	115
<b>Relative negative tolerance of the control supply voltage at AC at 60 Hz</b>	%	-15
<b>Relative positive tolerance of the control supply voltage at AC at 60 Hz</b>	%	10
<b>Display version for fault signal</b>		red

#### Mechanical data

<b>Size of engine control device</b>		S12
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<b>Width</b>	mm	160
<b>Height</b>	mm	230
<b>Depth</b>	mm	278
<b>Mounting type</b>		screw fixing
<b>Mounting position</b>		With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t
<b>Required spacing with side-by-side mounting</b>		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
<b>Installation altitude at height above sea level</b>	m	5 000
<b>Wire length maximum</b>	m	300
<b>Number of poles for main current circuit</b>		3

### Connections/Terminals

<b>Type of electrical connection</b>		busbar connection spring-loaded terminals
• for main current circuit		
• for auxiliary and control current circuit		
<b>Number of NC contacts for auxiliary contacts</b>		0
<b>Number of NO contacts for auxiliary contacts</b>		2
<b>Number of CO contacts for auxiliary contacts</b>		1
Type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		
• finely stranded with core end processing		70 ... 240 mm <sup>2</sup>
• finely stranded without core end processing		70 ... 240 mm <sup>2</sup>
• stranded		95 ... 300 mm <sup>2</sup>
Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		
• finely stranded with core end processing		120 ... 185 mm <sup>2</sup>
• finely stranded without core end processing		120 ... 185 mm <sup>2</sup>
• stranded		120 ... 240 mm <sup>2</sup>
Type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		
• finely stranded with core end processing		min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup>
• finely stranded without core end processing		min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup>
• stranded		max. 2x 70 mm <sup>2</sup> , max. 2x 240 mm <sup>2</sup>
Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal		
• using the back clamping point		250 ... 500 kcmil

<ul style="list-style-type: none"> <li>• using the front clamping point</li> <li>• using both clamping points</li> </ul>		3/0 ... 600 kcmil min. 2x 2/0, max. 2x 500 kcmil
<b>Type of connectable conductor cross-sections for DIN cable lug for main contacts</b> <ul style="list-style-type: none"> <li>• finely stranded</li> <li>• stranded</li> </ul>		50 ... 240 mm <sup>2</sup> 70 ... 240 mm <sup>2</sup>
<b>Type of connectable conductor cross-sections for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>		2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-sections at AWG conductors</b> <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary contacts</li> </ul>		2/0 ... 500 kcmil 2x (24 ... 16)

### Ambient conditions

<b>Ambient temperature</b> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	°C	-25 ... +60 -40 ... +80
<b>Derating temperature</b>	°C	40
<b>Protection class IP</b>		IP00

### Certificates/approvals

<b>General Product Approval</b>	<b>EMC</b>	<b>For use in hazardous locations</b>
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<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Shipping Approval</b>	<b>other</b>
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### UL/CSA ratings

<b>Yielded mechanical performance [hp] for three-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 220/230 V <ul style="list-style-type: none"> <li>— at standard circuit at 50 °C rated value</li> </ul> </li> </ul>	hp	100
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• at 460/480 V

— at standard circuit at 50 °C rated value

hp	200
Contact rating of auxiliary contacts according to UL	B300 / R300

Further information

**Simulation Tool for Soft Starters (STS)**

<https://support.industry.siemens.com/cs/ww/en/view/101494917>

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3RW4074-2BB34>

**Cax online generator**

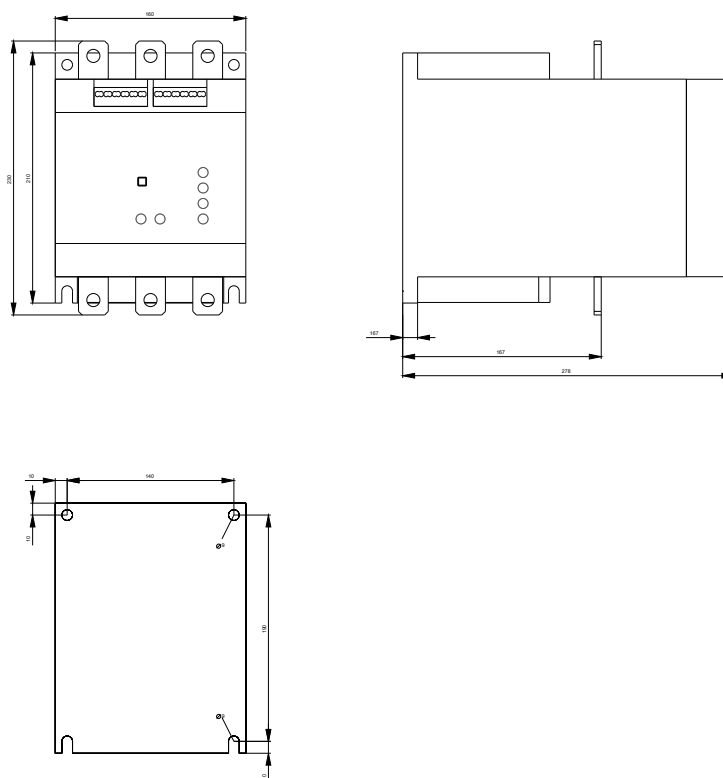
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RW4074-2BB34>

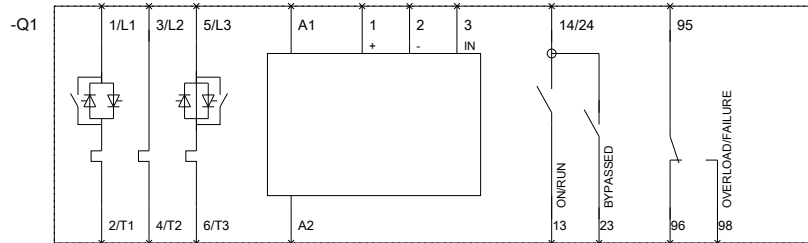
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4074-2BB34>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RW4074-2BB34&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RW4074-2BB34&lang=en)





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