



SIRIUS soft starter S6 162 A, 90 kW/400 V, 40 °C 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!!  
 Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5056-6AB14<<

### General technical data

<b>product brand name</b>		SIRIUS
<b>product feature</b>		
<ul style="list-style-type: none"> <li>integrated bypass contact system</li> <li>thyristors</li> </ul>		Yes Yes
<b>product function</b>		
<ul style="list-style-type: none"> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>external reset</li> <li>adjustable current limitation</li> <li>inside-delta circuit</li> </ul>		Yes Yes No Yes Yes No
<b>product component motor brake output</b>		No
<b>insulation voltage rated value</b>	V	600
<b>degree of pollution</b>		3, acc. to IEC 60947-4-2
<b>reference code according to EN 61346-2</b>		Q
<b>reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750</b>		G

### Power Electronics

<b>product designation</b>		Soft starter
<b>operational current</b>		
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> </ul>	A	162 145 125
<b>yielded mechanical performance for 3-phase motors</b>		
<ul style="list-style-type: none"> <li>at 230 V                             <ul style="list-style-type: none"> <li>— at standard circuit at 40 °C rated value</li> </ul> </li> <li>at 400 V                             <ul style="list-style-type: none"> <li>— at standard circuit at 40 °C rated value</li> </ul> </li> </ul>	kW	45 90
<b>yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	40
<b>operating frequency rated value</b>	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 [%]</b>	%	20
<b>adjustable motor current for motor overload protection minimum rated value</b>	A	87

continuous operating current [% of I <sub>e</sub> ] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	75
<b>Control circuit/ Control</b>		
type of voltage of the control supply voltage		AC
control supply voltage frequency 1 rated value	Hz	50
control supply voltage frequency 2 rated value	Hz	60
relative negative tolerance of the control supply voltage frequency	%	-10
relative positive tolerance of the control supply voltage frequency	%	10
control supply voltage 1 at AC		
• at 50 Hz rated value	V	230
• at 60 Hz rated value	V	230
relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-15
relative positive tolerance of the control supply voltage at AC at 50 Hz	%	10
relative negative tolerance of the control supply voltage at AC at 60 Hz	%	-15
relative positive tolerance of the control supply voltage at AC at 60 Hz	%	10
display version for fault signal		red
<b>Mechanical data</b>		
size of engine control device		S6
width	mm	120
height	mm	198
depth	mm	250
fastening method		screw fixing
mounting position		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
required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
wire length maximum	m	300
number of poles for main current circuit		3
<b>Connections/ Terminals</b>		
type of electrical connection		busbar connection screw-type terminals
• for main current circuit		
• for auxiliary and control circuit		
number of NC contacts for auxiliary contacts		0
number of NO contacts for auxiliary contacts		2
number of CO contacts for auxiliary contacts		1
type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		
• finely stranded with core end processing		16 ... 70 mm <sup>2</sup>
• finely stranded without core end processing		16 ... 70 mm <sup>2</sup>
• stranded		16 ... 70 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		16 ... 70 mm <sup>2</sup>
• finely stranded without core end processing		16 ... 70 mm <sup>2</sup>
• stranded		16 ... 70 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		max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup>
• finely stranded without core end processing		max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup>
• stranded		max. 2x 70 mm <sup>2</sup>
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal		

- using the back clamping point
- using the front clamping point
- using both clamping points

**type of connectable conductor cross-sections for DIN cable lug for main contacts**

- finely stranded
- stranded

**type of connectable conductor cross-sections for auxiliary contacts**

- solid
- finely stranded with core end processing

**type of connectable conductor cross-sections at AWG cables**

- for main contacts
- for auxiliary contacts
- for auxiliary contacts finely stranded with core end processing

6 ... 2/0  
6 ... 2/0  
max. 2x 1/0

2x (16 ... 95 mm<sup>2</sup>)  
2x (25 ... 120 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)  
2x (0.5 ... 1.5 mm<sup>2</sup>)

4 ... 250 kcmil  
2x (20 ... 14)  
2x (20 ... 16)

**Ambient conditions**

**installation altitude at height above sea level**

m

5 000

**environmental category**

- during transport according to IEC 60721
- during storage according to IEC 60721
- during operation according to IEC 60721

2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)  
1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  
3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6

**ambient temperature**

- during operation
- during storage

°C

-25 ... +60

°C

-40 ... +80

**derating temperature**

°C

40

**protection class IP on the front according to IEC 60529**

IP00; IP20 with cover

**touch protection on the front according to IEC 60529**

finger-safe, for vertical contact from the front with cover

**Certificates/ approvals**

General Product Approval

EMC



[Confirmation](#)



Declaration of Conformity

Test Certificates

Marine / Shipping

other



[Special Test Certificate](#)



[Confirmation](#)

**UL/CSA ratings**

**yielded mechanical performance [hp] for 3-phase AC motor**

- at 220/230 V
  - at standard circuit at 50 °C rated value
- at 460/480 V
  - at standard circuit at 50 °C rated value

hp

50

hp

100

**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,...)**

<https://www.siemens.com/ic10>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3RW4056-6BB44>

Cax online generator

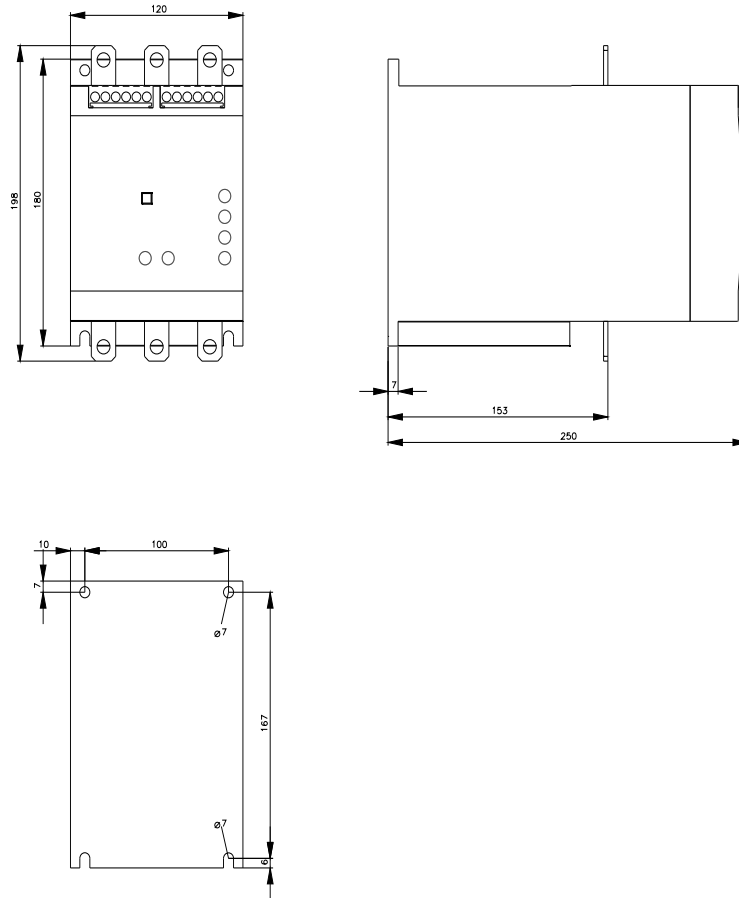
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4056-6BB44>

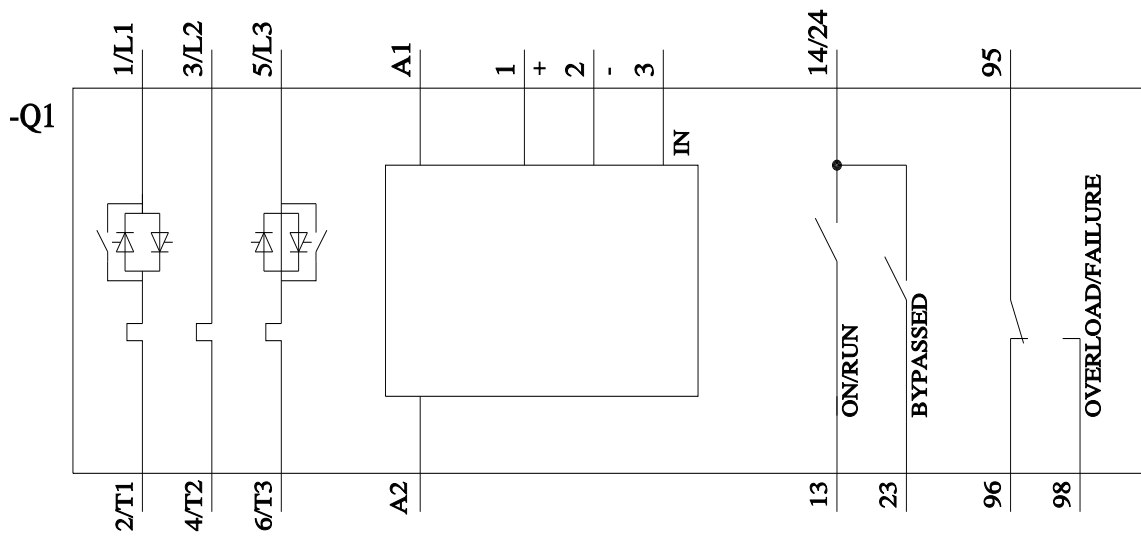
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4056-6BB44>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4056-6BB44&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4056-6BB44&lang=en)





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