



SIRIUS soft starter S6 145 A, 100 hp/460 V, 50 °C 200-460 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5056-6AB14<<

General technical data	
product brand name	SIRIUS
product designation	Soft starter
product feature	
• integrated bypass contact system	Yes
• thyristors	Yes
product function	
• intrinsic device protection	Yes
• motor overload protection	Yes
• evaluation of thermistor motor protection	No
• external reset	Yes
• adjustable current limitation	Yes
• inside-delta circuit	No
product component motor brake output	No
insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
reference code according to EN 61346-2	Q
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750	G
Power Electronics	
operational current	
• at 40 °C rated value	162 A
• at 50 °C rated value	145 A
• at 60 °C rated value	125 A
yielded mechanical performance for 3-phase motors	
• at 230 V	
— at standard circuit at 40 °C rated value	45 kW
• at 400 V	
— at standard circuit at 40 °C rated value	90 kW
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	40 hp
operating frequency rated value	50 ... 60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
operating voltage at standard circuit rated value	200 ... 460 V
relative negative tolerance of the operating voltage at standard circuit	-15 %

relative positive tolerance of the operating voltage at standard circuit	10 %
minimum load [%]	20 %
adjustable motor current for motor overload protection minimum rated value	87 A
continuous operating current [% of I <sub>e</sub> ] at 40 °C	115 %
power loss [W] at operational current at 40 °C during operation typical	75 W
<b>Control circuit/ Control</b>	
type of voltage of the control supply voltage	AC
control supply voltage frequency 1 rated value	50 Hz
control supply voltage frequency 2 rated value	60 Hz
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	115 V
• at 60 Hz rated value	115 V
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	120 mm
height	198 mm
depth	250 mm
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	100 mm
• at the side	5 mm
• downwards	75 mm
wire length maximum	300 m
number of poles for main current circuit	3
<b>Connections/ Terminals</b>	
type of electrical connection	
• for main current circuit	busbar connection
• for auxiliary and control circuit	screw-type terminals
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	

<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>stranded</li> </ul>	<p>max. 1x 50 mm<sup>2</sup>, 1x 70 mm<sup>2</sup></p> <p>max. 1x 50 mm<sup>2</sup>, 1x 70 mm<sup>2</sup></p> <p>max. 2x 70 mm<sup>2</sup></p>
<b>type of connectable conductor cross-sections for AWG cables for main contacts for box terminal</b> <ul style="list-style-type: none"> <li>using the back clamping point</li> <li>using the front clamping point</li> <li>using both clamping points</li> </ul>	<p>6 ... 2/0</p> <p>6 ... 2/0</p> <p>max. 2x 1/0</p>
<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>	<p>2x (16 ... 95 mm<sup>2</sup>)</p> <p>2x (25 ... 120 mm<sup>2</sup>)</p>
<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>	<p>2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>)</p>
<b>type of connectable conductor cross-sections for AWG cables</b> <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts finely stranded with core end processing</li> </ul>	<p>4 ... 250 kcmil</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 16)</p>

<b>Ambient conditions</b>	
<b>installation altitude at height above sea level</b>	5 000 m
<b>environmental category</b> <ul style="list-style-type: none"> <li>during transport according to IEC 60721</li> <li>during storage according to IEC 60721</li> <li>during operation according to IEC 60721</li> </ul>	<p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p>
<b>ambient temperature</b> <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> </ul>	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p>
<b>derating temperature</b>	40 °C
<b>protection class IP on the front according to IEC 60529</b>	IP00; IP20 with cover
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front with cover

<b>UL/CSA ratings</b>	
<b>yielded mechanical performance [hp] for 3-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> <li>at 460/480 V <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> </ul> </li> </ul>	<p>50 hp</p> <p>100 hp</p>
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300

<b>Approvals Certificates</b>	
<b>Environment</b>	<b>General Product Approval</b>

[Environmental Confirmations](#)



<b>EMV</b>	<b>For use in hazardous locations</b>	<b>Test Certificates</b>	<b>Maritime application</b>
------------	---------------------------------------	--------------------------	-----------------------------



[Special Test Certificate](#)



other

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

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

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**Information for data generation and storage**

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

**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?mlfb=3RW4056-6BB34>

**Cax online generator**

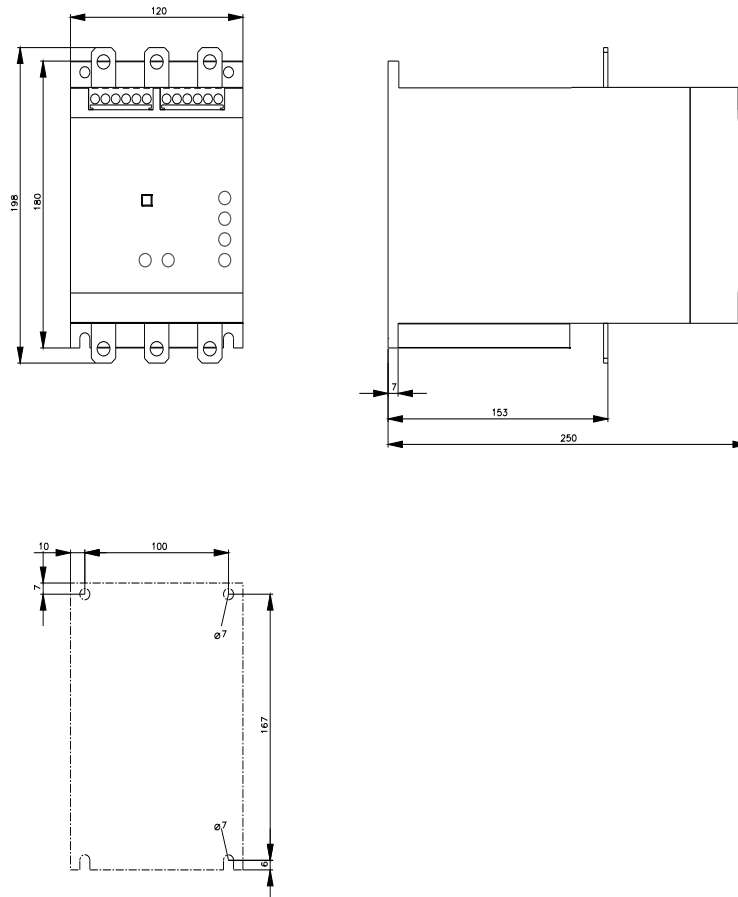
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4056-6BB34>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4056-6BB34>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4056-6BB34&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4056-6BB34&lang=en)





last modified:

4/1/2025 