



SIRIUS soft starter Values at 500 V, 40 °C standard: 203 A, 132 kW Inside-delta: 352 A, 250 kW 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5543-6HA16<<

General technical data	
product brand name	SIRIUS
product designation	Soft starter
product feature	
<ul style="list-style-type: none"> <li>integrated bypass contact system</li> </ul>	Yes
<ul style="list-style-type: none"> <li>thyristors</li> </ul>	Yes
product function	
<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>	Yes
<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>	Yes
product component motor brake output	Yes
insulation voltage rated value	690 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	
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>	203 A
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	180 A
<ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>	156 A
operational current for 3-phase motors at inside-delta circuit	
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>	352 A
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	312 A
<ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>	270 A
yielded mechanical performance for 3-phase motors	
<ul style="list-style-type: none"> <li>at 400 V                             <ul style="list-style-type: none"> <li>at standard circuit at 40 °C rated value</li> <li>at inside-delta circuit at 40 °C rated value</li> </ul> </li> </ul>	110 kW 200 kW
<ul style="list-style-type: none"> <li>at 500 V                             <ul style="list-style-type: none"> <li>at standard circuit at 40 °C rated value</li> <li>at inside-delta circuit at 40 °C rated value</li> </ul> </li> </ul>	132 kW 250 kW
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	400 ... 600 V

relative negative tolerance of the operating voltage at standard circuit	-15 %
relative positive tolerance of the operating voltage at standard circuit	10 %
operating voltage at inside-delta circuit rated value	400 ... 600 V
relative negative tolerance of the operating voltage at inside-delta circuit	-15 %
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
minimum load [%]	8 %
adjustable motor current for motor overload protection minimum rated value	40 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	89 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	230 V
• at 60 Hz rated value	230 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	Display
<b>Mechanical data</b>	
width	210 mm
height	230 mm
depth	298 mm
fastening method	screw fixing
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
required spacing with side-by-side mounting	
• upwards	100 mm
• at the side	5 mm
• downwards	75 mm
wire length maximum	500 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	3
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	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>

<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> <li>stranded</li> </ul>	<p>120 ... 185 mm<sup>2</sup></p> <p>120 ... 240 mm<sup>2</sup></p>
<b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b> <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>min. 2x 50 mm<sup>2</sup>, max. 2x 185 mm<sup>2</sup></p> <p>min. 2x 50 mm<sup>2</sup>, max. 2x 185 mm<sup>2</sup></p> <p>max. 2x 70 mm<sup>2</sup>, max. 2x 240 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>250 ... 500 kcmil</p> <p>3/0 ... 600 kcmil</p> <p>min. 2x 2/0, max. 2x 500 kcmil</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>50 ... 240 mm<sup>2</sup></p> <p>70 ... 240 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>2/0 ... 500 kcmil</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 16)</p>

#### Ambient conditions

<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>60 °C</p> <p>-25 ... +80 °C</p>
<b>derating temperature</b>	40 °C
<b>protection class IP on the front according to IEC 60529</b>	IP00; IP20 with box terminal/cover
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front with box terminal/cover

#### UL/CSA ratings

<b>yielded mechanical performance [hp] for 3-phase AC motor</b> <ul style="list-style-type: none"> <li><b>at 460/480 V</b> <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> <li>at inside-delta circuit at 50 °C rated value</li> </ul> </li> <li><b>at 575/600 V</b> <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> <li>at inside-delta circuit at 50 °C rated value</li> </ul> </li> </ul>	<p>125 hp</p> <p>250 hp</p> <p>150 hp</p> <p>300 hp</p>
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300

#### Approvals Certificates

Environment	General Product Approval
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[Environmental Conformations](#)



EMV	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application

other



[Confirmation](#)

[Confirmation](#)



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=3RW4443-6BC45>

Cax online generator

<https://support.automation.siemens.com/WW/CAxorder/default.aspx?lang=en&mlfb=3RW4443-6BC45>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4443-6BC45>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4443-6BC45&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4443-6BC45&lang=en)



