

SIRIUS soft starter Values at 400 V, 40 °C standard:  
 970 A, 560 kW Inside-delta: 1680 A, 1000 kW 200-460  
 V AC, 230 V AC Screw terminals !!! Phased-out product  
 !!! Successor is SIRIUS 3RW5, Preferred successor  
 type is >>3RW5556-6HA14<<

General technical data		
Product brand name		SIRIUS
Product feature		
• integrated bypass contact system		Yes
• Thyristors		Yes
Product function		
• Intrinsic device protection		Yes
• motor overload protection		Yes
• Evaluation of thermistor motor protection		Yes
• External reset		Yes
• Adjustable current limitation		Yes
• inside-delta circuit		Yes
Product component Motor brake output		Yes
Insulation voltage rated value	V	690
Degree of pollution		3, acc. to IEC 60947-4-2
Reference code acc. to DIN EN 61346-2		Q
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

## Power Electronics

<b>Product designation</b>		Soft starter
<b>Operating current</b>		
• at 40 °C rated value	A	970
• at 50 °C rated value	A	850
• at 60 °C rated value	A	760
<b>Operating current for three-phase motors at inside-delta circuit</b>		
• at 40 °C rated value	A	1 680
• at 50 °C rated value	A	1 472
• at 60 °C rated value	A	1 316
<b>Mechanical power output for three-phase motors</b>		
• at 230 V		
— at standard circuit at 40 °C rated value	W	315 000
— at inside-delta circuit at 40 °C rated value	W	560 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	560 000
— at inside-delta circuit at 40 °C rated value	W	1 000 000
<b>Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	300
<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>Operating voltage at inside-delta circuit rated value</b>	V	200 ... 460
<b>Relative negative tolerance of the operating voltage at inside-delta circuit</b>	%	-15
<b>Relative positive tolerance of the operating voltage at inside-delta circuit</b>	%	10
<b>Minimum load [%]</b>	%	8
<b>Adjustable motor current for motor overload protection minimum rated value</b>	A	194
<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	270

## Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage frequency 1 rated value</b>	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		Display

#### Mechanical data

Width	mm	510
Height	mm	640
Depth	mm	290
Mounting type		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	mm	100
• at the side	mm	5
• downwards	mm	75
Wire length maximum	m	500
Number of poles for main current circuit		3

#### Connections/ Terminals

Type of electrical connection		
• for main current circuit		busbar connection
• for auxiliary and control current 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 DIN cable lug for main contacts		
• finely stranded		50 ... 240 mm <sup>2</sup>
• stranded		70 ... 240 mm <sup>2</sup>
Type of connectable conductor cross-sections for auxiliary contacts		

<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 at AWG conductors</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>	m	5 000
<b>Environmental category</b> <ul style="list-style-type: none"> <li>• during transport acc. to IEC 60721</li> <li>• during storage acc. to IEC 60721</li> <li>• during operation acc. 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>°C</p> <p>°C</p>	<p>60</p> <p>-25 ... +80</p>
<b>Derating temperature</b>	°C	40
<b>Protection class IP</b>		IP00

### Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping	other
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[Confirmation](#)

### UL/CSA ratings

Yielded mechanical performance [hp] for three-phase AC motor

• at 200/208 V

— at inside-delta circuit at 50 °C rated value

hp 550

• at 220/230 V

— at standard circuit at 50 °C rated value

hp 350

— at inside-delta circuit at 50 °C rated value

hp 650

• at 460/480 V

— at standard circuit at 50 °C rated value

hp 750

— at inside-delta circuit at 50 °C rated value

hp 1 300

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,...)**

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

**Industry Mall (Online ordering system)**

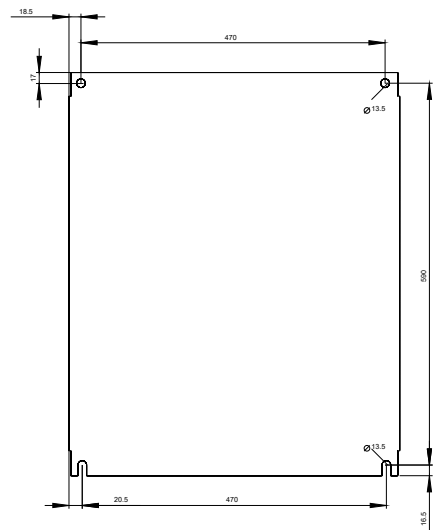
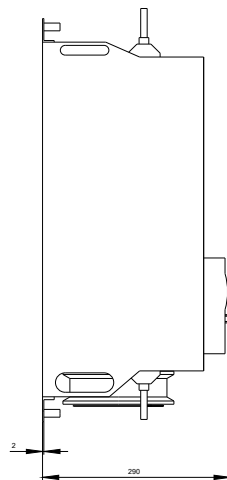
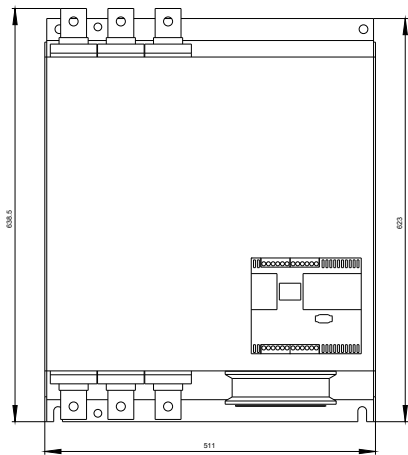
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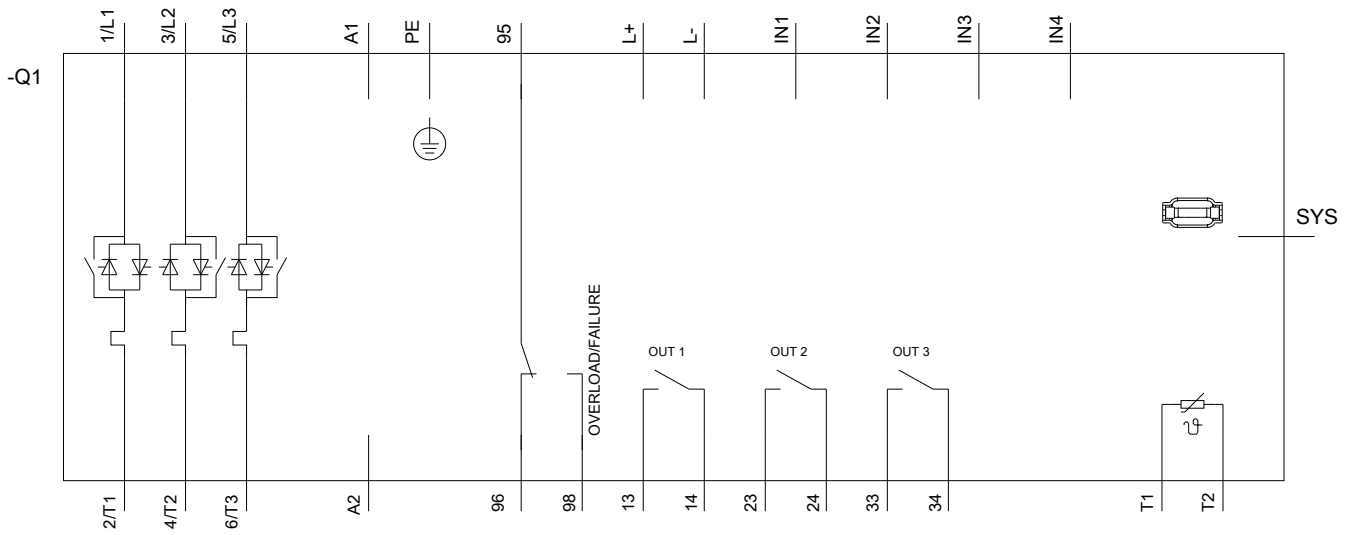
**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4458-6BC44>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4458-6BC44>





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