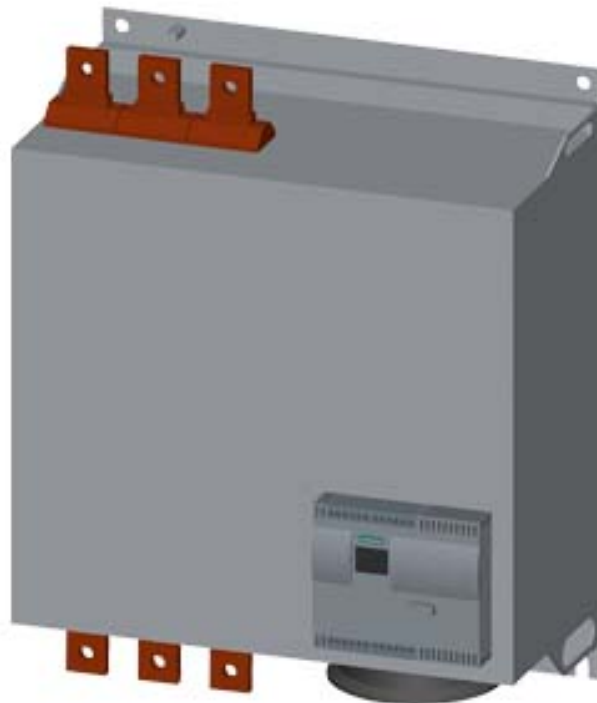


SIRIUS soft starter Values at 400 V, 40 °C Standard:  
 693 A, 400 kW Inside-delta: 1200 A, 710 kW 200-460 V  
 AC, 230 V AC Screw terminals



## 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> </ul>		Yes
<ul style="list-style-type: none"> <li>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>		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
<b>Product component Motor brake output</b>		Yes
<b>Reference identifier acc. to DIN EN 61346-2</b>		Q
<b>Reference identifier acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>		G

## Power Electronics

<b>Product designation</b>		Soft starter
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<b>Operating current</b>		
• at 40 °C rated value	A	693
• at 50 °C rated value	A	615
• at 60 °C rated value	A	551
<b>Operating current for three-phase motors at inside-delta circuit</b>		
• at 40 °C rated value	A	1 200
• at 50 °C rated value	A	1 065
• at 60 °C rated value	A	954
<b>Mechanical power output for three-phase motors</b>		
• at 230 V		
— at standard circuit at 40 °C rated value	W	200 000
— at inside-delta circuit at 40 °C rated value	W	400 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	400 000
— at inside-delta circuit at 40 °C rated value	W	710 000
<b>Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	200
<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	138
<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	220
<b>Control electronics</b>		
<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

Relative negative tolerance of the control supply voltage frequency	%	-10
Relative positive tolerance of the control supply voltage frequency	%	10
<b>Control supply voltage 1 at AC</b>		
• 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 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
<b>Required spacing with side-by-side mounting</b>		
• 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		
<b>Type of electrical connection</b>		
• 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
<b>Type of connectable conductor cross-sections for DIN cable lug for main contacts</b>		
• finely stranded		50 ... 240 mm <sup>2</sup>
• stranded		70 ... 240 mm <sup>2</sup>
<b>Type of connectable conductor cross-sections for auxiliary contacts</b>		
• solid		2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-sections at AWG conductors</b>		

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

	2/0 ... 500 kcmil
	2x (20 ... 14)
	2x (20 ... 16)

### 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> </ul>		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> <li>• during storage acc. to IEC 60721</li> </ul>		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> <li>• during operation acc. to IEC 60721</li> </ul>		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	°C	60
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	°C	-25 ... +80
<b>Derating temperature</b>	°C	40
<b>Protection class IP</b>		IP00

### Certificates/approvals

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
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<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 200/208 V           <ul style="list-style-type: none"> <li>— at inside-delta circuit at 50 °C rated value</li> </ul> </li> <li>• at 220/230 V</li> </ul>	hp	350

- at standard circuit at 50 °C rated value
- at inside-delta circuit at 50 °C rated value
- at 460/480 V
  - at standard circuit at 50 °C rated value
  - at inside-delta circuit at 50 °C rated value

hp	250
hp	450
hp	500
hp	950
<b>Contact rating of auxiliary contacts according to UL</b>	
	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?mlfb=3RW4455-6BC44>

##### Cax online generator

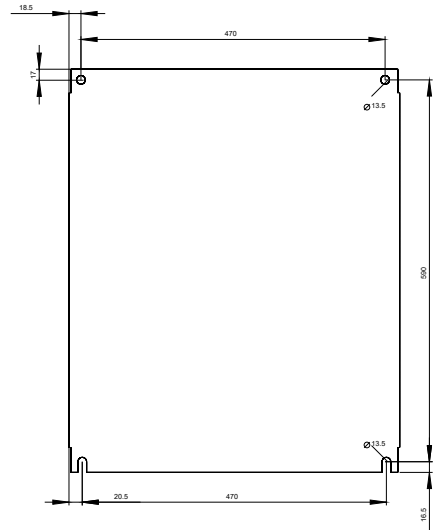
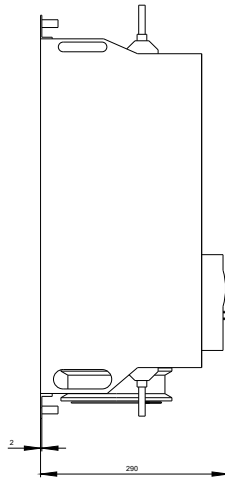
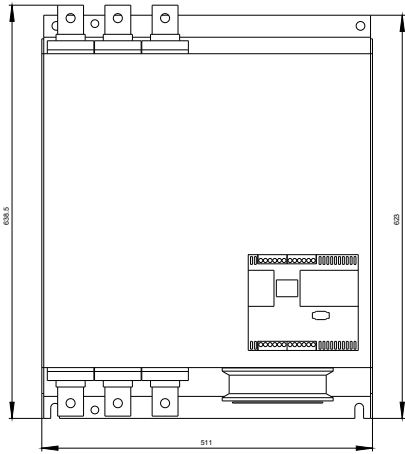
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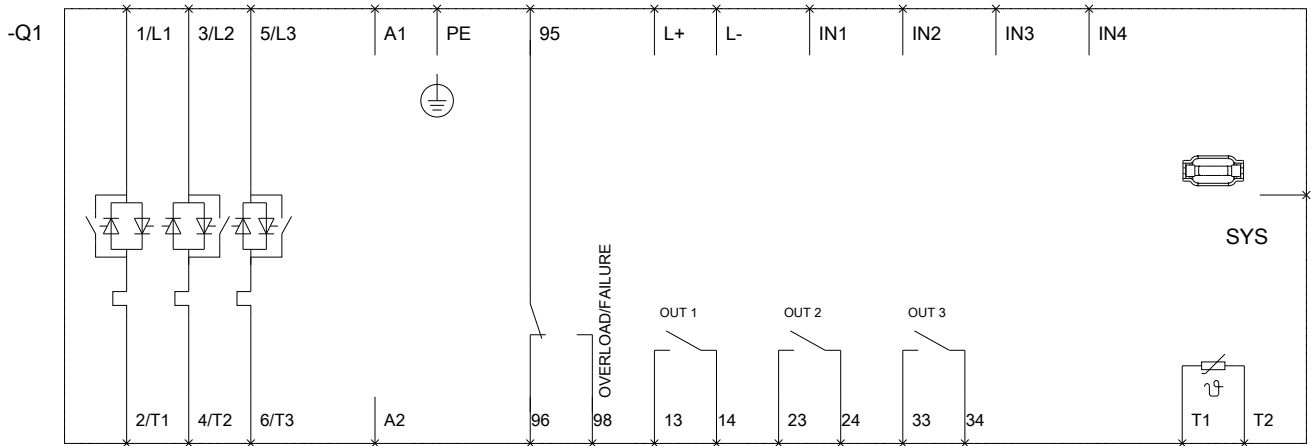
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4455-6BC44>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4455-6BC44&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4455-6BC44&lang=en)





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