



SIRIUS soft starter Values at 500 V, 40 °C standard: 113 A, 75 kW Inside-delta: 196 A, 132 kW 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5534-6HA16<<

**General technical data**

<b>product brand name</b>		SIRIUS
<b>product feature</b>		
• integrated bypass contact system		Yes
• thyristors		Yes
<b>product function</b>		
• 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
<b>product component motor brake output</b>		Yes
<b>insulation voltage rated value</b>	V	690
<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>		
• at 40 °C rated value	A	113
• at 50 °C rated value	A	100
• at 60 °C rated value	A	88
<b>operational current for 3-phase motors at inside-delta circuit</b>		
• at 40 °C rated value	A	196
• at 50 °C rated value	A	173
• at 60 °C rated value	A	152
<b>yielded mechanical performance for 3-phase motors</b>		
• at 400 V		
— at standard circuit at 40 °C rated value	kW	55
— at inside-delta circuit at 40 °C rated value	kW	110
• at 500 V		
— at standard circuit at 40 °C rated value	kW	75
— at inside-delta circuit at 40 °C rated value	kW	132
<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	400 ... 600
<b>relative negative tolerance of the operating voltage at standard circuit</b>	%	-15

relative positive tolerance of the operating voltage at standard circuit	%	10
operating voltage at inside-delta circuit rated value	V	400 ... 600
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	A	22
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	64

#### Control circuit/ Control

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		Display

#### Mechanical data

width	mm	170
height	mm	200
depth	mm	270
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	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 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		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
- finely stranded without core end processing
- stranded

max. 1x 50 mm<sup>2</sup>, 1x 70 mm<sup>2</sup>  
 max. 1x 50 mm<sup>2</sup>, 1x 70 mm<sup>2</sup>  
 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

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

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

- finely stranded
- stranded

16 ... 95 mm<sup>2</sup>  
 25 ... 120 mm<sup>2</sup>

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

- solid
- finely stranded with core end processing

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

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

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

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 60  
 °C -25 ... +80

**derating temperature**

°C 40

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

IP00; IP20 with box terminal/cover

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

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

**Certificates/ approvals**

**General Product Approval**

EMC



[Confirmation](#)



**Declaration of Conformity**

**Test Certificates**

**Marine / Shipping**



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



**Marine / Shipping**

**other**



[Confirmation](#)

**UL/CSA ratings**

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

- **at 460/480 V**
  - at standard circuit at 50 °C rated value
  - at inside-delta circuit at 50 °C rated value
- **at 575/600 V**
  - at standard circuit at 50 °C rated value
  - at inside-delta circuit at 50 °C rated value

hp	75
hp	125
hp	75
hp	150
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 on the packaging**

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

**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=3RW4434-6BC45>

**Cax online generator**

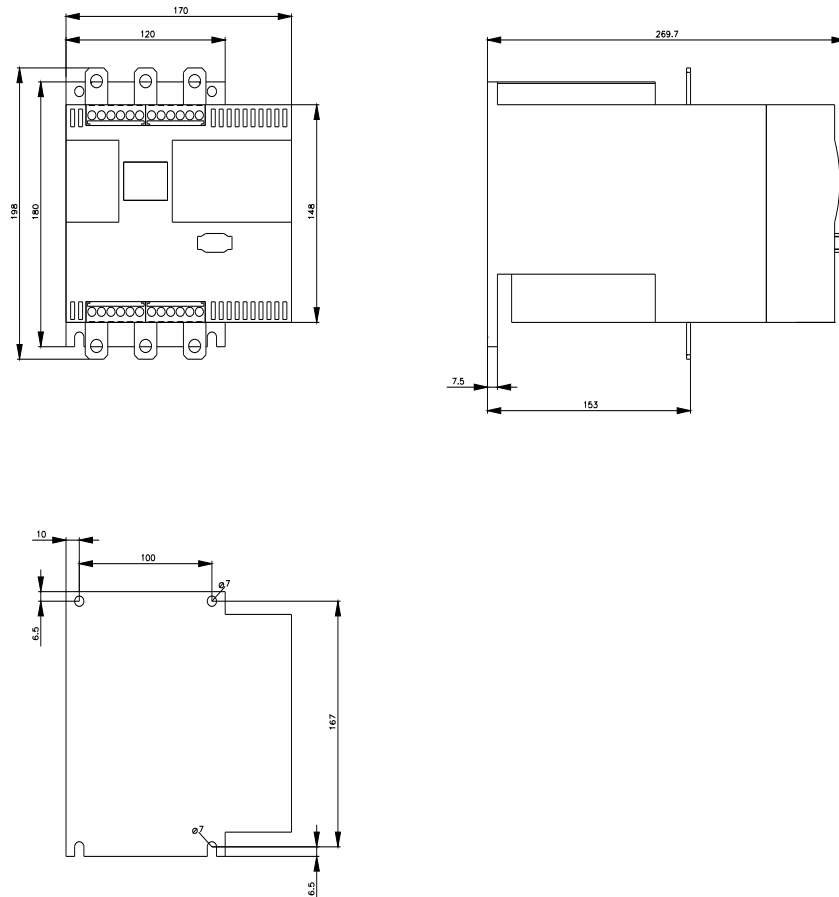
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4434-6BC45>

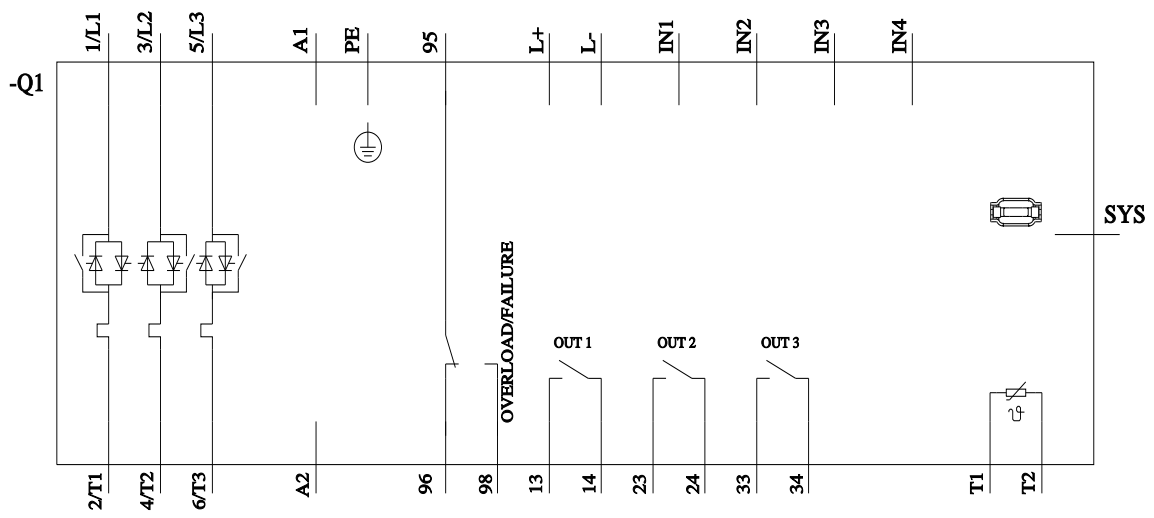
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4434-6BC45>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4434-6BC45&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4434-6BC45&lang=en)





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