## **SIEMENS**

Data sheet 3RW4446-6BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 356 A, 200 kW Inside-delta: 617 A, 355 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5546-6HA14<<

General technical data		
product brand name		SIRIUS
product feature		
<ul> <li>integrated bypass contact system</li> </ul>		Yes
<ul><li>thyristors</li></ul>		Yes
product function		
<ul> <li>intrinsic device protection</li> </ul>		Yes
<ul> <li>motor overload protection</li> </ul>		Yes
<ul> <li>evaluation of thermistor motor protection</li> </ul>		Yes
<ul> <li>external reset</li> </ul>		Yes
<ul> <li>adjustable current limitation</li> </ul>		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		
product designation		Soft starter
operational current		
<ul> <li>at 40 °C rated value</li> </ul>	Α	356
<ul> <li>at 50 °C rated value</li> </ul>	Α	315
at 60 °C rated value	Α	280
operational current for 3-phase motors at inside-delta circuit		
<ul> <li>at 40 °C rated value</li> </ul>	Α	617
<ul> <li>at 50 °C rated value</li> </ul>	Α	546
at 60 °C rated value	Α	485
yielded mechanical performance for 3-phase motors		
• at 230 V		
<ul> <li>— at standard circuit at 40 °C rated value</li> </ul>	W	110 000
<ul> <li>— at inside-delta circuit at 40 °C rated value</li> </ul>	W	200 000
● at 400 V		
<ul> <li>— at standard circuit at 40 °C rated value</li> </ul>	W	200 000
<ul> <li>— at inside-delta circuit at 40 °C rated value</li> </ul>	W	355 000
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	100

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operating frequency rated value	Hz	50 60
relative negative tolerance of the operating frequency	%	-10
relative positive tolerance of the operating frequency	%	10
operating voltage at standard circuit rated value	V	200 460
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	V	200 460
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	Α	71
continuous operating current [% of le] at 40 °C	. %	115
power loss [W] at operational current at 40 °C during operation typical	W	174
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	210
height	mm	230
depth	mm	298
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
<ul> <li>for auxiliary and control circuit</li> </ul>		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		



alaurain n maint		
clamping point		70 040 3
finely stranded with core end processing		70 240 mm²
finely stranded without core end processing		70 240 mm²
• stranded		95 300 mm²
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		
<ul> <li>finely stranded with core end processing</li> </ul>		120 185 mm²
<ul> <li>finely stranded without core end processing</li> </ul>		120 185 mm²
<ul><li>stranded</li></ul>		120 240 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		
<ul> <li>finely stranded with core end processing</li> </ul>		min. 2x 50 mm², max. 2x 185 mm²
<ul> <li>finely stranded without core end processing</li> </ul>		min. 2x 50 mm², max. 2x 185 mm²
stranded		max. 2x 70 mm², max. 2x 240 mm²
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal		
<ul> <li>using the back clamping point</li> </ul>		250 500 kcmil
<ul> <li>using the front clamping point</li> </ul>		3/0 600 kcmil
using both clamping points		min. 2x 2/0, max. 2x 500 kcmil
type of connectable conductor cross-sections for DIN cable lug for main contacts		
<ul> <li>finely stranded</li> </ul>		50 240 mm²
• stranded		70 240 mm²
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²)
type of connectable conductor cross-sections at AWG cables		
<ul> <li>for main contacts</li> </ul>		2/0 500 kcmil
<ul> <li>for auxiliary contacts</li> </ul>		2x (20 14)
<ul> <li>for auxiliary contacts finely stranded with core end processing</li> </ul>		2x (20 16)
Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category		
<ul> <li>during transport acc. to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
during storage acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
<ul> <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
ambient temperature		
<ul> <li>during operation</li> </ul>	°C	60
during storage	°C	-25 +80
derating temperature	°C	40
protection class IP		IP00
Certificates/ approvals		
General Product Approval		EMC

General Product Approval

**EMC** 













**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 200/208 V		
<ul> <li>at inside-delta circuit at 50 °C rated value</li> </ul>	hp	150
• at 220/230 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	125
<ul> <li>at inside-delta circuit at 50 °C rated value</li> </ul>	hp	200
• at 460/480 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	250
<ul> <li>at inside-delta circuit at 50 °C rated value</li> </ul>	hp	450
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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4446-6BC44

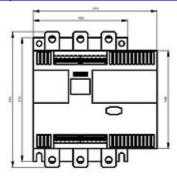
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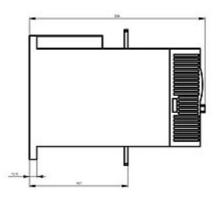
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW4446-6BC44}$ 

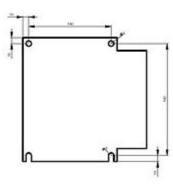
 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$ 

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RW4446-6BC44}}$ 

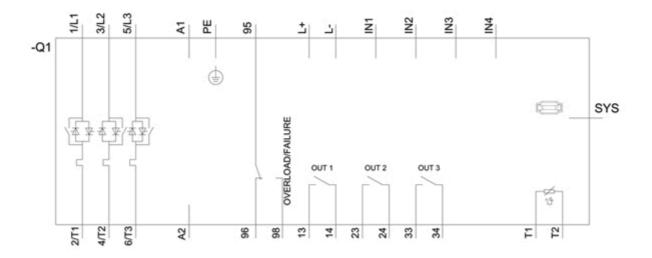
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4446-6BC44&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4446-6BC44&lang=en</a>











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