## **SIEMENS**

Data sheet 3RW4446-6BC46



SIRIUS soft starter Values at 690 V, 40 °C standard: 356 A, 355 kW Inside-delta: only up to 600 V 400-690 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5546-6HA16<<

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 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		
● at 500 V				
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	W	250 000		
<ul> <li>at inside-delta circuit at 40 °C rated value</li> </ul>	W	450 000		
at 690 V at standard circuit at 40 °C rated value	W	355 000		
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	400 690		
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	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	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				
<ul> <li>at 50 Hz rated value</li> </ul>	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		
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				

			мс	Declaration of	
s/ approvals		terminal/cover			
otection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front with box			
on class IP on the front acc. to IEC 60529		IP00; IP20 with box	x terminal/cover		
temperature	°C	40			
ing storage	°C	-25 +80			
ing operation	°C	60			
temperature		mist), 3S2 (sand m	iust not get into th	ne devices), 3M6	
ing operation acc. to IEC 60721		1S2 (sand must not get inside the devices), 1M4 3K6 (no formation of ice, no condensation), 3C3 (no salt			
ing storage acc. to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) 1K6 (only occasional condensation), 1C2 (no salt mist),			
ing transport acc. to IEC 60721		2K2, 2C1, 2S1, 2M	12 (max. fall heigh	nt 0.3 m)	
nental category					
on altitude at height above sea level	m	5 000			
onditions					
auxiliary contacts finely stranded with core end essing		2x (20 16)			
auxiliary contacts		2x (20 14)			
main contacts		2/0 500 kcmil			
main contacts		2/0 500 !!			
onnectable conductor cross-sections at AW	G				
ely stranded with core end processing		2x (0.5 1.5 mm²)	)		
d		2x (0.5 2.5 mm²)	)		
contacts					
onnectable conductor cross-sections for		70 2-70 111111			
anded		70 240 mm²			
g for main contacts Bly stranded		50 240 mm²			
onnectable conductor cross-sections for DIN	1				
ng both clamping points		min. 2x 2/0, max. 2	2x 500 kcmil		
ng the front clamping point		3/0 600 kcmil			
ng the back clamping point		250 500 kcmil			
onnectable conductor cross-sections at AWO or main contacts for box terminal	G				
anded		max. 2x 70 mm², n	nax. 2x 240 mm²		
ely stranded without core end processing		min. 2x 50 mm², m	ax. 2x 185 mm <sup>2</sup>		
ely stranded with core end processing		min. 2x 50 mm², m	ax. 2x 185 mm²		
ntacts for box terminal using both clamping					
onnectable conductor cross-sections for		120 240 mm²			
ely stranded without core end processing		120 185 mm²			
ely stranded with core end processing		120 185 mm²			
ntacts for box terminal using the back		400 4052			
onnectable conductor cross-sections for					
anded		95 300 mm²			
ely stranded without core end processing		70 240 mm²			
ely stranded without core end processing		70 240 mm	2	2	













**Test Certificates** 

Marine / Shipping









Marine / Shipping

other



## Confirmation

UL/CSA ratings					
yielded mechanical performance [hp] for 3-phase AC motor					
• 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			
● at 575/600 V					
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	300			
<ul> <li>at inside-delta circuit at 50 °C rated value</li> </ul>	hp	600			
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=3RW4446-6BC46

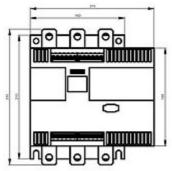
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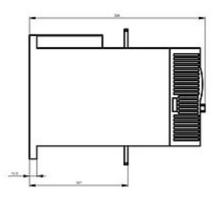
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4446-6BC46

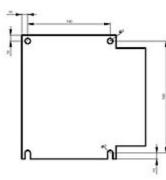
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

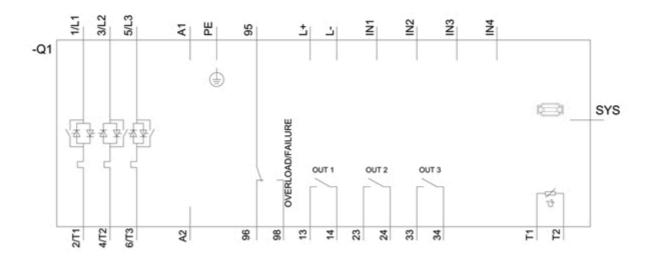
https://support.industry.siemens.com/cs/ww/en/ps/3RW4446-6BC46

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=3RW4446-6BC46&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4446-6BC46&lang=en</a>









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