# **SIEMENS**

Data sheet 3RW44 46-6BC34



SIRIUS SOFT STARTER, VALUES WITH 460 V, 50 DEG., STANDARD: 315A, 250HP, INSIDE-DELTA CIRCUIT 3: 546A, 450HP, 200-460 V AC, 115 V AC, SCREW TERMINALS

General technical data:		
product brand name		SIRIUS
Product feature		
<ul> <li>integrated bypass contact system</li> </ul>		Yes
Thyristors		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
External reset		Yes
<ul> <li>Adjustable current limitation</li> </ul>		Yes
• inside-delta circuit		Yes
Product component Motor brake output		Yes
Equipment marking acc. to DIN EN 61346-2		Q
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics:		
Product designation		soft starters for high feature applications
Operating current		
• at 40 °C Rated value	Α	356
● at 50 °C Rated value	Α	315
• at 60 °C Rated value	Α	280
Operating current for three-phase motors at 3-phase root switching		
• at 40 °C Rated value	Α	617

• at 50 °C Rated value	Α	546
• at 60 °C Rated value	Α	485
Mechanical power output for three-phase motors		
● at 230 V		
<ul> <li>at standard circuit at 40 °C Rated value</li> </ul>	W	110 000
— at 3-phase root switching at 40 °C Rated	W	200 000
value		
● at 400 V		
<ul> <li>at standard circuit at 40 °C Rated value</li> </ul>	W	200 000
<ul> <li>— at 3-phase root switching at 40 °C Rated value</li> </ul>	W	355 000
yielded mechanical performance [hp] for three-phase	metric	100
AC motor at 200/208 V at standard circuit at 50 °C	hp	
Rated value		
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 3-phase root switching Rated value	V	200 460
Relative negative tolerance of the operating voltage at 3-phase root switching	%	-15
Relative positive tolerance of the operating voltage at 3-phase root switching	%	10
Minimum load in % of I_M	%	8
Adjustable motor current for motor overload protection minimum rated value	Α	71
Continuous operating current in % of I_e at 40 °C	%	115
Active power loss at operating current at 40 °C during operation typical	W	174
Control electronics:		
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 with AC  ● at 50 Hz Rated value	V	115

● at 60 Hz Rated value	V	115
Relative negative tolerance of the control supply voltage with AC at 60 Hz	%	-15
Relative positive tolerance of the control supply voltage with AC at 60 Hz	%	10
Display version for fault signal		Display

Mechanical data:		
Width	mm	210
Height	mm	230
Depth	mm	298
Mounting type		screw fixing
mounting position		bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
<ul><li>downwards</li></ul>	mm	75
Installation altitude at height above sea level	m	5 000
Cable 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 current 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-section for main contacts for box terminal using the front clamping point		
<ul> <li>finely stranded with core end processing</li> </ul>		70 240 mm²
<ul> <li>finely stranded without core end processing</li> </ul>		70 240 mm²
• stranded		95 300 mm²
Type of connectable conductor cross-section 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
• stranded		120 240 mm²
Type of connectable conductor cross-section for main contacts for box terminal using both clamping points		

finely stranded with core end processing	min. 2x 50 mm², max. 2x 185 mm²
finely stranded without core end processing	min. 2x 50 mm², max. 2x 185 mm²
• stranded	max. 2x 70 mm², max. 2x 240 mm²
Type of connectable conductor cross-section for	
AWG conductors 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
<ul> <li>using both clamping points</li> </ul>	min. 2x 2/0, max. 2x 500 kcmil
Type of connectable conductor cross-section 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-section for	
auxiliary contacts	
• solid	2x (0.5 2.5 mm²)
• finely stranded with core end processing	2x (0.5 1.5 mm²)
Type of connectable conductor cross-section for	
AWG conductors	
• for main contacts	2/0 500 kcmil
• for auxiliary contacts	2x (20 14)
<ul> <li>for auxiliary contacts finely stranded with core end processing</li> </ul>	2x (20 16)

Ambient conditions:		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	60
during storage	°C	-25 <b>+</b> 80
Derating temperature	°C	40
Protection class IP		IP00

# Certificates/ approvals:

#### **General Product Approval**



**Declaration of** Conformity













### **Test Certificates**

### **Shipping Approval**

**Special Test** Certificate

Type Test Certificates/Test Report









## **Shipping Approval**

### other





Environmental Confirmations

UL/CSA ratings:		
yielded mechanical performance [hp] for three-phase		
AC motor		
● at 200/208 V		
<ul> <li>— at 3-phase root switching at 50 °C Rated</li> </ul>	metric	150
value	hp	
● at 220/230 V		
— at standard circuit at 50 °C Rated value	metric	125
	hp	
— at 3-phase root switching at 50 °C Rated	metric	200
value	hp	
● at 460/480 V		
<ul> <li>at standard circuit at 50 °C Rated value</li> </ul>	metric	250
	hp	
— at 3-phase root switching at 50 °C Rated	metric	450
value	hp	
Contact rating of the auxiliary contacts acc. to UL		B300 / R300

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW44466BC34

http://support.automation.siemens.com/WW/view/en/3RW44466BC34/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW44466BC34&lang=en">http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW44466BC34&lang=en</a>







