## **SIEMENS**

Data sheet 3RW3016-1BB04



SIRIUS soft starter S00 9 A, 4 kW/400 V, 40  $^{\circ}\text{C}$  200-480 V AC, 24 V AC/DC Screw terminals

product brand name		SIRIUS
product designation		Soft starter
product feature		
integrated bypass contact system		Yes
• thyristors		Yes
product function		
intrinsic device protection		No
motor overload protection		No
evaluation of thermistor motor protection		No
external reset		No
adjustable current limitation		No
inside-delta circuit		No
product component motor brake output		No
insulation voltage rated value	V	600
degree of pollution		3, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum	V	1 200
reference code according to EN 61346-2		Q
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750		G
ower Electronics		
operational current		
at 40 °C rated value	Α	9
at 50 °C rated value	Α	8
at 60 °C rated value	Α	7
yielded mechanical performance for 3-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	kW	2.2
• at 400 V		
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	kW	4
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	2
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	200 480
relative negative tolerance of the operating voltage at standard circuit	%	-15
relative positive tolerance of the operating voltage at	%	10
standard circuit		

continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during	W	1
operation typical		
Control circuit/ Control		
type of voltage of the control supply voltage		AC/DC
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	24
at 60 Hz rated value	V	24
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
control supply voltage 1 at DC rated value	V	24
relative negative tolerance of the control supply voltage at DC	%	-20
relative positive tolerance of the control supply voltage at DC	%	20
display version for fault signal		red
Mechanical data		
size of engine control device		S00
width	mm	45
height	mm	95
depth	mm	150
fastening method		screw and snap-on mounting
mounting position		With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° tiltable to the front and back
required spacing with side-by-side mounting		
• upwards	mm	60
• at the side	mm	15
downwards	mm	40
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		across to an Acrossinala
for main current circuit     for applications and control circuit		screw-type terminals
for auxiliary and control circuit  Pumber of NC contacts for auxiliary contacts		screw-type terminals
number of NO contacts for auxiliary contacts		0
number of NO contacts for auxiliary contacts		1
number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main		0
contacts for box terminal using the front clamping point		
• solid		2x (1 2.5 mm²), 2x (2.5 6 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (1 2.5 mm²), 2x (2.5 6 mm²)
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal		
using the front clamping point		2x (16 10)
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 2.5 mm²)
finely stranded with core end processing		2x (0.25 1.5 mm²)
type of connectable conductor cross-sections for AWG cables		
for auxiliary contacts		2x (20 14)
for auxiliary contacts finely stranded with core end processing		2x (20 16)
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Global Warming Potential [CO2 eq] total kg 63.9  Global Warming Potential [CO2 eq] during manufacturing kg 11.1  global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64	Ambient conditions		
<ul> <li>during transport according to IEC 60721</li> <li>during storage according to IEC 60721</li> <li>during operation according to IEC 60721</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>during operation according to IEC 60721</li> <li>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>ambient temperature</li> <li>during operation</li> <li>*C</li> <li>-25 +60</li> <li>during storage</li> <li>*C</li> <li>40</li> <li>protection class IP on the front according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front invironmental footprint</li> <li>Global Warming Potential [CO2 eq] during manufacturing</li> <li>global warming Potential [CO2 eq] during sales</li> <li>kg</li> <li>63.9</li> <li>Global Warming Potential [CO2 eq] during sales</li> <li>kg</li> <li>54.3</li> <li>Global Warming Potential [CO2 eq] during operation</li> <li>kg</li> <li>54.3</li> <li>Global Warming Potential [CO2 eq] after end of life</li> <li>kg</li> <li>1.64</li> <li>LI/CSA ratings</li> <li>yielded mechanical performance [hp] for 3-phase AC motor</li> <li>at 220/230 V</li> <li>— at standard circuit at 50 °C rated value</li> <li>hp</li> <li>2</li> <li>at 460/480 V</li> <li>— at standard circuit at 50 °C rated value</li> <li>hp</li> <li>5</li> </ul>	installation altitude at height above sea level	m	5 000
<ul> <li>during storage according to IEC 60721</li> <li>during operation according to IEC 60721</li> <li>aK6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>during operation according to IEC 60721</li> <li>aK6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>ambient temperature         <ul> <li>during operation</li> <li>°C -25 +60</li> <li>during storage</li> <li>°C -40 +80</li> </ul> </li> <li>derating temperature         <ul> <li>°C 40</li> </ul> </li> <li>protection class IP on the front according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front invironmental footprint</li> </ul> <li>Global Warming Potential [CO2 eq] total</li> <li>kg 63.9</li> <li>Global Warming Potential [CO2 eq] during manufacturing</li> <li>kg 11.1</li> <li>global warming Potential [CO2 eq] during operation</li> <li>kg 54.3</li> <li>Global Warming Potential [CO2 eq] after end of life</li> <li>kg -1.64</li> <li>LI/CSA ratings  <ul> <li>yielded mechanical performance [hp] for 3-phase AC motor</li> <li>at 220/230 V</li> <li>— at standard circuit at 50 °C rated value</li> <li>hp 2</li> </ul> </li> <li>at 460/480 V</li> <li>— at standard circuit at 50 °C rated value</li> <li>hp 5</li>	environmental category		
(sand must not get inside the devices), 1M4  • during operation according to IEC 60721  ambient temperature • during operation • during storage  derating temperature  or during storage  derating temperature  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front invironmental footprint  Global Warming Potential [CO2 eq] during manufacturing kg 11.1  global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5  • at 480/480 V  — at standard circuit at 50 °C rated value hp 5	<ul> <li>during transport according to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
ambient temperature  • during operation • during storage  or during manufacturing storage  stouch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front storage stora	during storage according to IEC 60721		
<ul> <li>during operation</li> <li>during storage</li> <li>C -25 +60</li> <li>during storage</li> <li>C -40 +80</li> </ul> derating temperature <ul> <li>C 40</li> </ul> protection class IP on the front according to IEC 60529 <ul> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front invironmental footprint</li> </ul> Global Warming Potential [CO2 eq] total <ul> <li>kg 63.9</li> </ul> Global Warming Potential [CO2 eq] during manufacturing <ul> <li>kg 11.1</li> </ul> global warming potential [CO2 eq] during sales <ul> <li>kg 0.109</li> </ul> Global Warming Potential [CO2 eq] during operation kg 54.3 <ul> <li>Global Warming Potential [CO2 eq] after end of life</li> <li>kg -1.64</li> </ul> IL/CSA ratings   yielded mechanical performance [hp] for 3-phase AC motor   at 220/230 V   — at standard circuit at 50 °C rated value hp 2   at 460/480 V   — at standard circuit at 50 °C rated value hp 5	during operation according to IEC 60721		
during storage     derating temperature     protection class IP on the front according to IEC 60529     touch protection on the front according to IEC 60529     finger-safe, for vertical contact from the front invironmental footprint  Global Warming Potential [CO2 eq] total     Global Warming Potential [CO2 eq] during manufacturing     lingular warming potential [CO2 eq] during sales     lingular warming potential [CO2 eq] during operation     lingular warming Potential [CO2 eq] during operation     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential [CO2 eq] after end of life     lingular warming Potential warming Potential [CO2 eq] after end of life     lingular warming Potential warming Poten	ambient temperature		
derating temperature  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front invironmental footprint  Global Warming Potential [CO2 eq] total  Global Warming Potential [CO2 eq] during manufacturing  global warming potential [CO2 eq] during sales  Global Warming Potential [CO2 eq] during operation  kg 0.109  Global Warming Potential [CO2 eq] during operation  kg 54.3  Global Warming Potential [CO2 eq] after end of life  kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  at 220/230 V  — at standard circuit at 50 °C rated value  hp 2  at 460/480 V  — at standard circuit at 50 °C rated value  hp 5	during operation	°C	-25 +60
protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front finger-safe, for vertical contact from the final contact from the front finger-safe, for vertical contact from the final contact from the front finger-safe, for vertical contact from the final contact from the final contact from the front final contact from the final contact from the final contact front final contact from the final contact from the final contact front final contact from the final contact front final con	during storage	°C	-40 +80
touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front  finyironmental footprint  Global Warming Potential [CO2 eq] total kg 63.9  Global Warming Potential [CO2 eq] during manufacturing kg 11.1  global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	derating temperature	°C	40
Global Warming Potential [CO2 eq] total kg 63.9  Global Warming Potential [CO2 eq] during manufacturing kg 11.1  global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 5  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	protection class IP on the front according to IEC 60529		IP20
Global Warming Potential [CO2 eq] total kg 63.9  Global Warming Potential [CO2 eq] during manufacturing kg 11.1  global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front
Global Warming Potential [CO2 eq] during manufacturing kg 11.1 global warming potential [CO2 eq] during sales kg 0.109 Global Warming Potential [CO2 eq] during operation kg 54.3 Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	Environmental footprint		
global warming potential [CO2 eq] during sales kg 0.109  Global Warming Potential [CO2 eq] during operation kg 54.3  Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	Global Warming Potential [CO2 eq] total	kg	63.9
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Global Warming Potential [CO2 eq] after end of life kg -1.64  IL/CSA ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V  — at standard circuit at 50 °C rated value hp 2  • at 460/480 V  — at standard circuit at 50 °C rated value hp 5	global warming potential [CO2 eq] during sales	kg	0.109
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— at standard circuit at 50 °C rated value hp 2  • at 460/480 V — at standard circuit at 50 °C rated value hp 5	yielded mechanical performance [hp] for 3-phase AC motor		
at 460/480 V  — at standard circuit at 50 °C rated value	• at 220/230 V		
— at standard circuit at 50 °C rated value hp 5	— at standard circuit at 50 °C rated value	hp	2
	● at 460/480 V		
contact rating of auxiliary contacts according to UL B300 / R300	<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	5
	contact rating of auxiliary contacts according to UL		B300 / R300

**General Product Approval** 



Confirmation









EMV **Test Certificates** other **Environment** 



<u>KC</u>

Type Test Certificates/Test Report

Confirmation

Miscellaneous



**Environment** 



**Environmental Confirmations** 

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=3RW3016-1BB04

Cax online generator

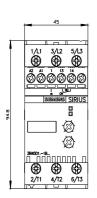
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW3016-1BB04}$ 

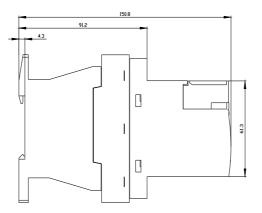
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

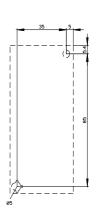
https://support.industry.siemens.com/cs/ww/en/ps/3RW3016-1BB04

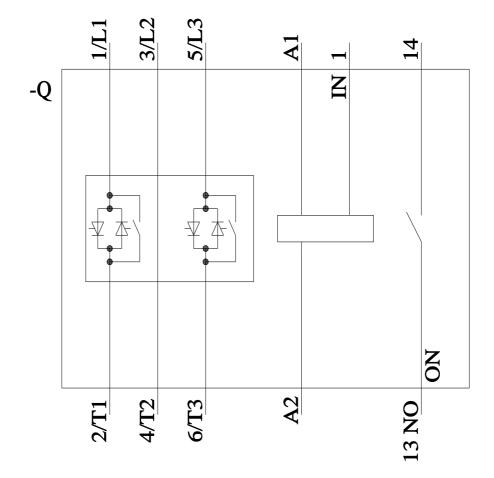
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW3016-1BB04&lang=en









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