## **SIEMENS**

Data sheet 3RW4046-1BB04



SIRIUS soft starter S3 80 A, 45 kW/400 V, 40  $^{\circ}\text{C}$  200-480 V AC, 24 V AC/DC Screw terminals

General technical data		
product brand name		SIRIUS
product designation		Soft starter
product feature		
integrated bypass contact system		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>		No
external reset		Yes
adjustable current limitation		Yes
• 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	1 600
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
Power Electronics		
operational current		
<ul> <li>at 40 °C rated value</li> </ul>	Α	80
• at 50 °C rated value	Α	73
at 60 °C rated value	Α	66
yielded mechanical performance for 3-phase motors		
● at 230 V		
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	kW	22
● at 400 V		
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	kW	45
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	20
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 standard circuit	%	10
minimum load [%]	%	20

	_	
adjustable motor current for motor overload protection minimum rated value	А	43
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	12
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	%	-10
frequency		
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		\$3
width	mm	70
height	mm	170
depth	mm	190
fastening method		screw and snap-on mounting
mounting position		With additional fan: With vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° t
required spacing with side-by-side mounting		The state of the s
upwards	mm	60
at the side	mm	30
downwards	mm	40
		300
wire length maximum number of poles for main current circuit	m	3
Connections/ Terminals		3
type of electrical connection		corou type terminals
for main current circuit     for auxiliary and control sizes;		screw-type terminals
for auxiliary and control circuit		screw-type terminals
number of NC contacts for auxiliary contacts		0
number of NO contacts for auxiliary contacts		2
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		
• solid		2x (2.5 16 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2.5 35 mm²
stranded  type of connectable conductor cross-sections for main		4 70 mm²
contacts for box terminal using the back clamping point		
• solid		2x (2.5 16 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2.5 50 mm²
• stranded		10 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		

		0 (0.5 40 3)
• solid		2x (2.5 16 mm²)
finely stranded with core end processing		2x (2.5 35 mm²)
• stranded		2x (10 50 mm²)
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal		
<ul> <li>using the back clamping point</li> </ul>		2x (10 1/0)
<ul><li>using the front clamping point</li></ul>		2x (10 1/0)
using both clamping points		10 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts		
<ul> <li>finely stranded</li> </ul>		2 x (10 50 mm²)
• stranded		2x (10 70 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 for AWG cables		
for main contacts		2x (7 1/0)
<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 according to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
<ul> <li>during storage according to IEC 60721</li> </ul>		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
during operation according to IEC 60721		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature		
during operation	°C	-25 +60
during storage	°C	-40 +80
derating temperature	°C	40
protection class IP on the front according to IEC 60529		IP20
touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front
Environmental footprint		
Global Warming Potential [CO2 eq] total	kg	175
Global Warming Potential [CO2 eq] during manufacturing	kg	23.7
global warming potential [CO2 eq] during sales	kg	0.471
Global Warming Potential [CO2 eq] during operation	kg	158
Global Warming Potential [CO2 eq] after end of life	kg	-6.65
UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 220/230 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	25
• at 460/480 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	50
contact rating of auxiliary contacts according to UL		B300 / R300
Approvals Certificates		
General Product Approval		







Confirmation





EMV For use in hazardous locations Test Certificates



<u>KC</u>





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping







Confirmation

other

Special Test Certificate

Railway

Confirmation

## **Environment**



Environmental Confirmations

## 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=3RW4046-1BB04

Cax online generator

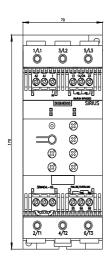
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4046-1BB04

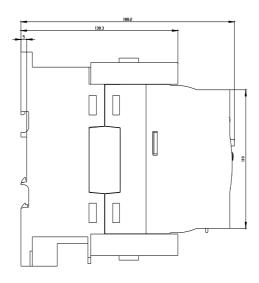
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

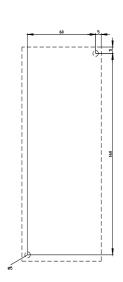
https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-1BB04

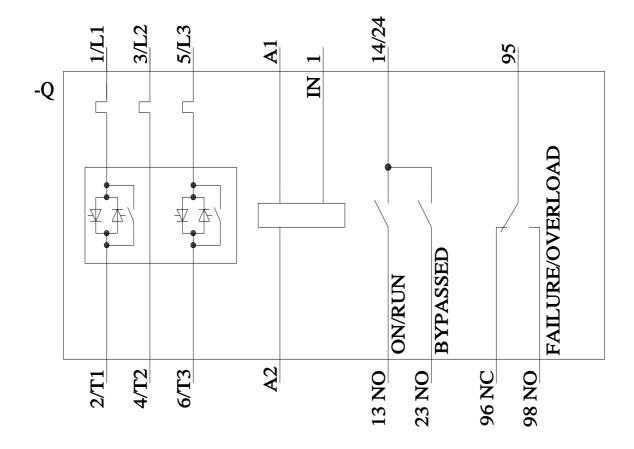
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4046-1BB04&lang=en









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