SIEMENS

Data sheet 3RW4046-1BB04



SIRIUS soft starter S3 80 A, 45 kW/400 V, 40 °C 200-480 V AC, 24 V AC/DC Screw terminals

General technical data		
product brand name		SIRIUS
product feature		
 integrated bypass contact system 		Yes
• thyristors		Yes
product function		
intrinsic device protection		Yes
motor overload protection		Yes
 evaluation of thermistor motor protection 		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
reference code according to EN 61346-2		Q
reference code according to DIN 40719 extended		G
according to IEC 204-2 according to IEC 750		
Power Electronics		
product designation		Soft starter
operational current		
 at 40 °C rated value 	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		
 — at standard circuit at 40 °C rated value 	kW	22
● at 400 V		
 — at standard circuit at 40 °C rated value 	kW	45
yielded mechanical performance [hp] for 3-phase AC	hp	20
motor at 200/208 V at standard circuit at 50 °C rated value		
operating frequency rated value	Hz	50 60
relative negative tolerance of the operating frequency	%	-10
relative negative tolerance of the operating frequency	%	10
operating voltage at standard circuit rated value	70 V	200 480
relative negative tolerance of the operating voltage at	%	-15
standard circuit	,0	
relative positive tolerance of the operating voltage at standard circuit	%	10
minimum load [%]	%	20
adjustable motor current for motor overload protection minimum rated value	Α	43

	21	
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		
		ACIDO
type of voltage of the control supply voltage	1.1-	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		S3
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		
• upwards	mm	60
at the side	mm	30
downwards	mm	40
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		
for main current circuit		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)
finely stranded with core end processing		2.5 35 mm ²
stranded stranded		4 70 mm ²
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		
• solid		2x (2.5 16 mm²)
finely stranded with core end processing		2.5 50 mm ²
• stranded		10 70 mm ²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		

• 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 at AWG cables for main contacts for box terminal		
 using the back clamping point 		2x (10 1/0)
 using the front clamping point 		2x (10 1/0)
 using both clamping points 		10 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts		
finely stranded		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)
 finely stranded with core end processing 		2x (0.5 1.5 mm²)
type of connectable conductor cross-sections at AWG cables		
 for main contacts 		2x (7 1/0)
 for auxiliary contacts 		2x (20 14)
 for auxiliary contacts finely stranded with core end processing 		2x (20 16)
Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category		
 during transport according to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
 during storage according to IEC 60721 		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
Certificates/ approvals		

Certificates/ approvals

General Product Approval

EMC





Confirmation







Declaration	of
Conformity	

Test Certificates

Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate







other Railway

<u>Confirmation</u> <u>Confirmation</u> <u>Vibration and Shock</u>

UL/CSA ratings

yielded mechanical performance [hp] for 3-phase AC meter.

• at 220/230 V

- at standard circuit at 50 °C rated value

• at 460/480 V

— at standard circuit at 50 °C rated value

contact rating of auxiliary contacts according to UL

hp	25
hp	50 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=3RW4046-1BB04

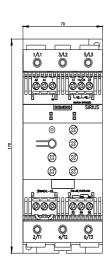
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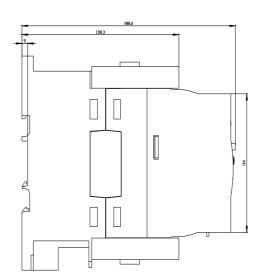
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4046-1BB04

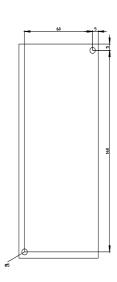
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

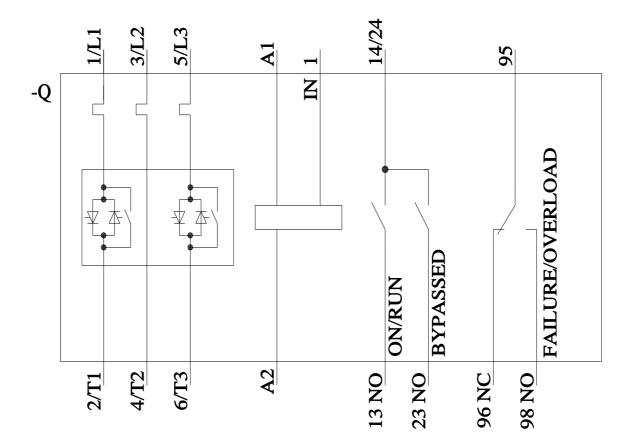
https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-1BB04

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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