



SIRIUS soft starter S3 80 A, 45 kW/400 V, 40 °C 200-480 V AC, 110-230 V AC/DC spring-type terminals

General technical data

product brand name		SIRIUS
product feature		
<ul style="list-style-type: none"> integrated bypass contact system thyristors 		Yes Yes
product function		
<ul style="list-style-type: none"> intrinsic device protection motor overload protection evaluation of thermistor motor protection external reset adjustable current limitation inside-delta circuit 		Yes Yes No Yes Yes 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 according to IEC 204-2 according to IEC 750		G

Power Electronics

product designation		Soft starter
operational current		
<ul style="list-style-type: none"> at 40 °C rated value at 50 °C rated value at 60 °C rated value 	A	80 73 66
yielded mechanical performance for 3-phase motors		
<ul style="list-style-type: none"> at 230 V <ul style="list-style-type: none"> — at standard circuit at 40 °C rated value at 400 V <ul style="list-style-type: none"> — at standard circuit at 40 °C rated value 	kW	22 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	A	43

continuous operating current [% of I _e] 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 frequency	%	-10
relative positive tolerance of the control supply voltage frequency	%	10
control supply voltage 1 at AC at 50 Hz	V	110 ... 230
control supply voltage 1 at AC at 60 Hz	V	110 ... 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
control supply voltage 1 at DC	V	110 ... 230
relative negative tolerance of the control supply voltage at DC	%	-15
relative positive tolerance of the control supply voltage at DC	%	10
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		spring-loaded 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 mm ²)
• finely stranded with core end processing		2.5 ... 35 mm ²
• 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 mm ²)
• 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 mm ²)

<ul style="list-style-type: none"> finely stranded with core end processing stranded 		2x (2.5 ... 35 mm ²) 2x (10 ... 50 mm ²)
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal <ul style="list-style-type: none"> using the back clamping point using the front clamping point using both clamping points 		2x (10 ... 1/0) 2x (10 ... 1/0) 10 ... 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts <ul style="list-style-type: none"> finely stranded stranded 		2 x (10 ... 50 mm ²) 2x (10 ... 70 mm ²)
type of connectable conductor cross-sections for auxiliary contacts <ul style="list-style-type: none"> solid finely stranded with core end processing 		2x (0.25 ... 2.5 mm ²) 2x (0.25 ... 1.5 mm ²)
type of connectable conductor cross-sections at AWG cables <ul style="list-style-type: none"> for main contacts for auxiliary contacts 		2x (7 ... 1/0) 2x (24 ... 14)

Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category <ul style="list-style-type: none"> during transport according to IEC 60721 during storage according to IEC 60721 during operation according to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature <ul style="list-style-type: none"> during operation during storage 	°C	-25 ... +60
	°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	
General Product Approval	EMC



[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
	Special Test Certificate	Type Test Certificates/Test Report
Marine / Shipping	other	Railway
	Confirmation	Confirmation
		Vibration and Shock

UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor <ul style="list-style-type: none"> at 220/230 V — at standard circuit at 50 °C rated value 	hp	25

- at 460/480 V

— at standard circuit at 50 °C rated value

contact rating of auxiliary contacts according to UL

hp	50 B300 / R300
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Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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?mfb=3RW4046-2BB14>

Cax online generator

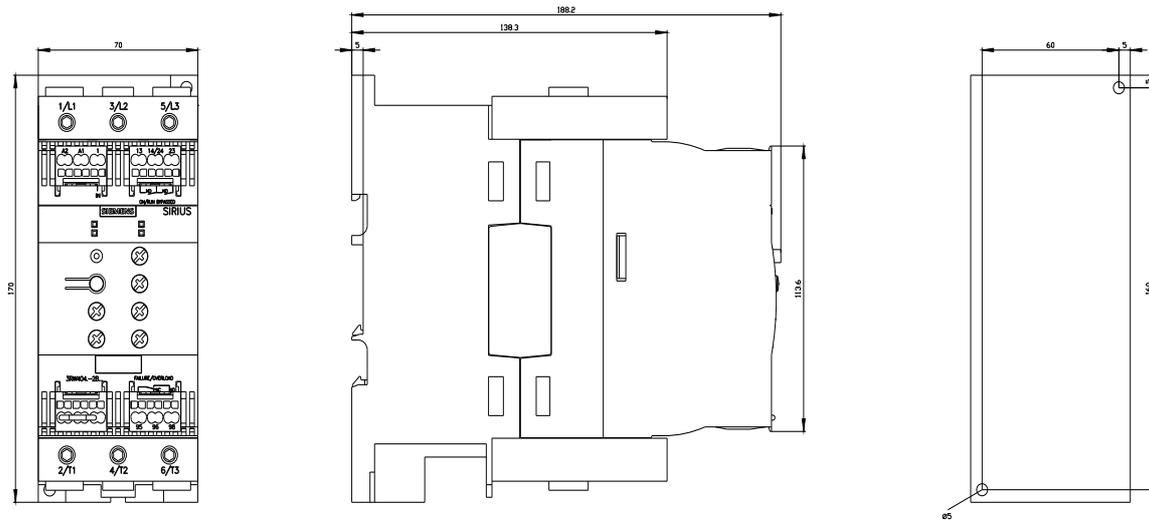
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RW4046-2BB14>

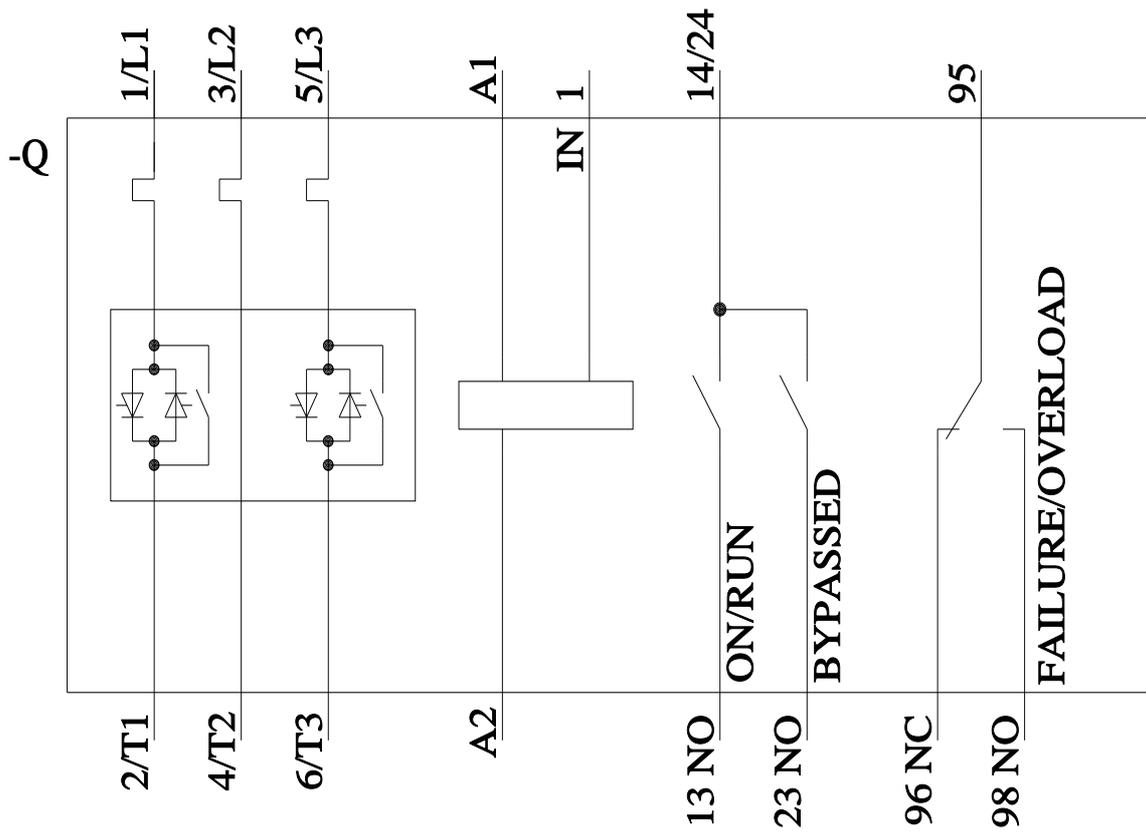
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-2BB14>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RW4046-2BB14&lang=en





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