



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

General technical data

product brand name	SIRIUS	
product feature	<ul style="list-style-type: none"> • integrated bypass contact system • thyristors 	
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 	
product component motor brake output		
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		
• at 40 °C rated value	A	80
• at 50 °C rated value	A	73
• at 60 °C rated value	A	66
yielded mechanical performance for 3-phase motors		
• at 230 V	kW	22
— at standard circuit at 40 °C rated value		
• at 400 V	kW	45
— at standard circuit at 40 °C rated value		
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		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 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)

• 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	2x (10 ... 1/0) 2x (10 ... 1/0) 10 ... 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts	2 x (10 ... 50 mm ²) 2x (10 ... 70 mm ²)
type of connectable conductor cross-sections for auxiliary contacts	2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²)
type of connectable conductor cross-sections at AWG cables	2x (7 ... 1/0) 2x (20 ... 14) 2x (20 ... 16)
• for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing	

Ambient conditions

installation altitude at height above sea level	m	5 000
environmental category		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	°C	-25 ... +60
• during operation • 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

General Product Approval	EMC
 Confirmation	   

Declaration of Conformity	Test Certificates	Marine / Shipping
 EG-Konf.	 Type Test Certificates/Test Report	Special Test Certificate  LRS

Marine / Shipping	other	Railway	Confirmation	Confirmation	Vibration and Shock
					

UL/CSA ratings	
yielded mechanical performance [hp] for 3-phase AC motor	

• at 220/230 V	hp	25
— at standard circuit at 50 °C rated value		
• at 460/480 V	hp	50
— at standard circuit at 50 °C rated value		B300 / R300

contact rating of auxiliary contacts according to UL

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?mlfb=3RW4046-1BB14>

Cax online generator

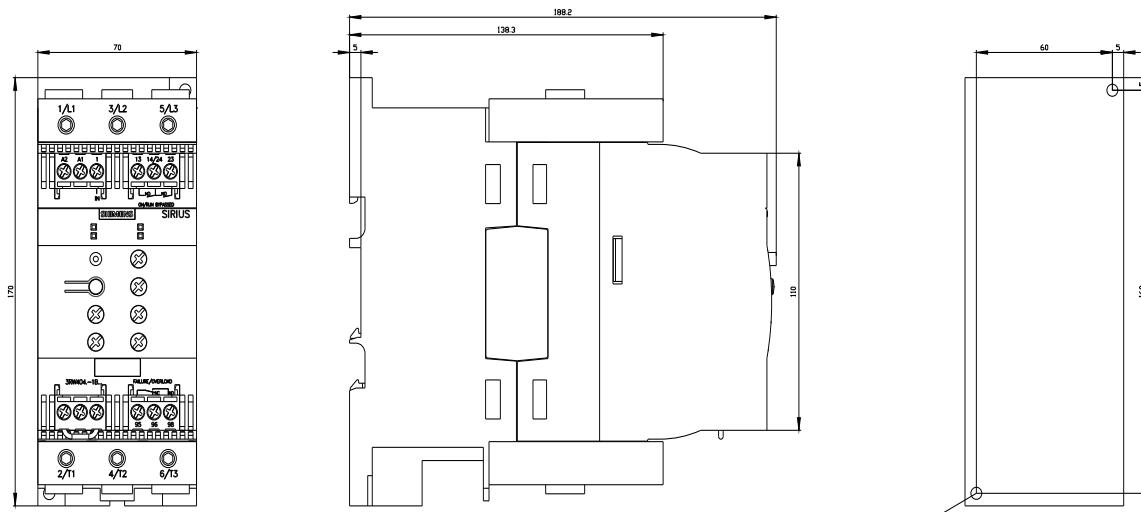
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4046-1BB14>

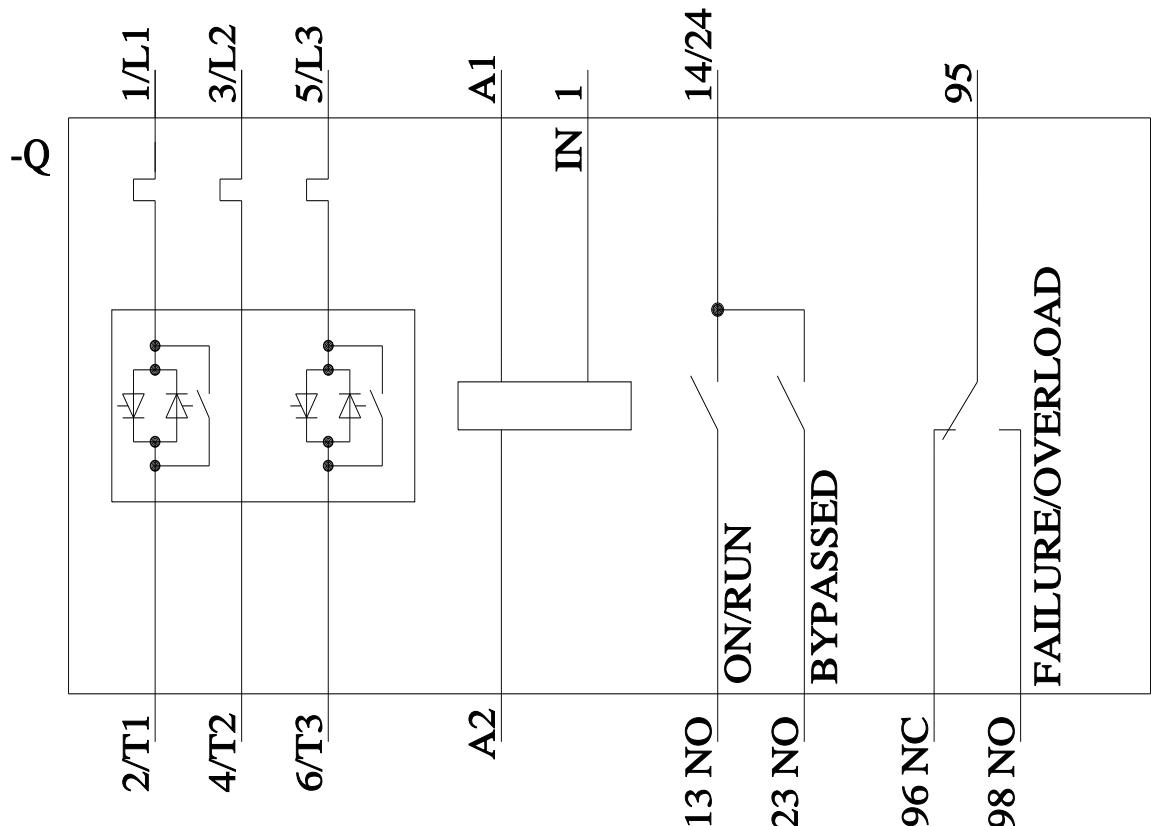
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-1BB14>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4046-1BB14&lang=en





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