



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

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		Yes
• 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 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		
— 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 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 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 mm²
• stranded		4 ... 70 mm²
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 mm²
• stranded		10 ... 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		

- solid
- finely stranded with core end processing
- stranded

type of connectable conductor cross-sections at AWG cables for main contacts for box terminal

- using the back clamping point
- using the front clamping point
- using both clamping points

type of connectable conductor cross-sections for DIN cable lug for main contacts

- finely stranded
- stranded

type of connectable conductor cross-sections for auxiliary contacts

- solid
- finely stranded with core end processing

type of connectable conductor cross-sections at AWG cables

- for main contacts
- for auxiliary contacts
- for auxiliary contacts finely stranded with core end processing

2x (2.5 ... 16 mm²)
2x (2.5 ... 35 mm²)
2x (10 ... 50 mm²)

2x (10 ... 1/0)
2x (10 ... 1/0)
10 ... 2/0

2 x (10 ... 50 mm²)
2x (10 ... 70 mm²)

2x (0.5 ... 2.5 mm²)
2x (0.5 ... 1.5 mm²)

2x (7 ... 1/0)
2x (20 ... 14)
2x (20 ... 16)

Ambient conditions

installation altitude at height above sea level

m

5 000

environmental category

- during transport according to IEC 60721
- during storage according to IEC 60721

- during operation according to IEC 60721

ambient temperature

- during operation
- during storage

derating temperature

°C

-25 ... +60

°C

-40 ... +80

°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](#)



Test Certificates

Marine / Shipping

other

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

Railway

[Vibration and Shock](#)

[Confirmation](#)

UL/CSA ratings

yielded mechanical performance [hp] for 3-phase AC

motor

- 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 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=3RW4046-1TB04>

Cax online generator

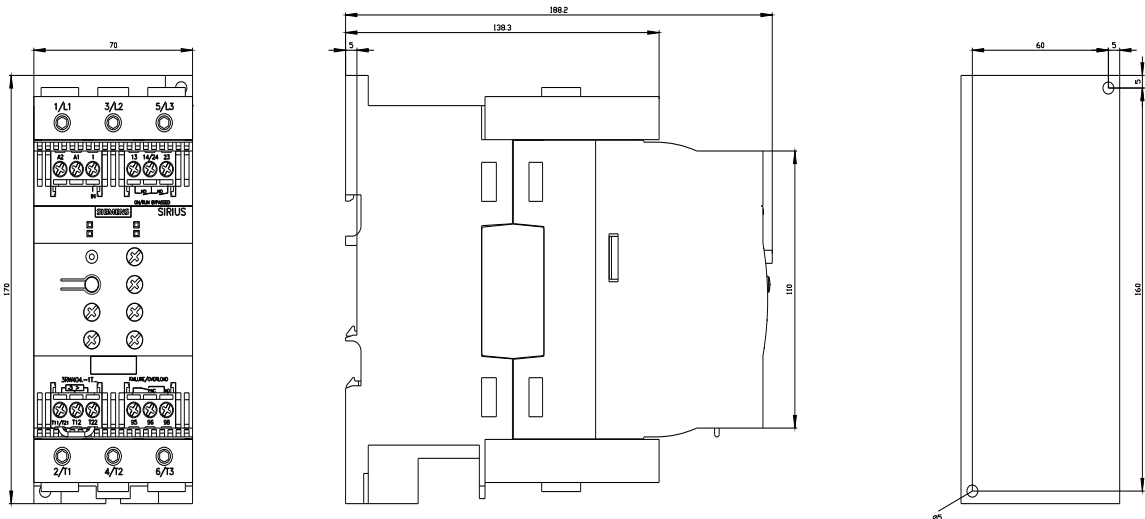
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4046-1TB04>

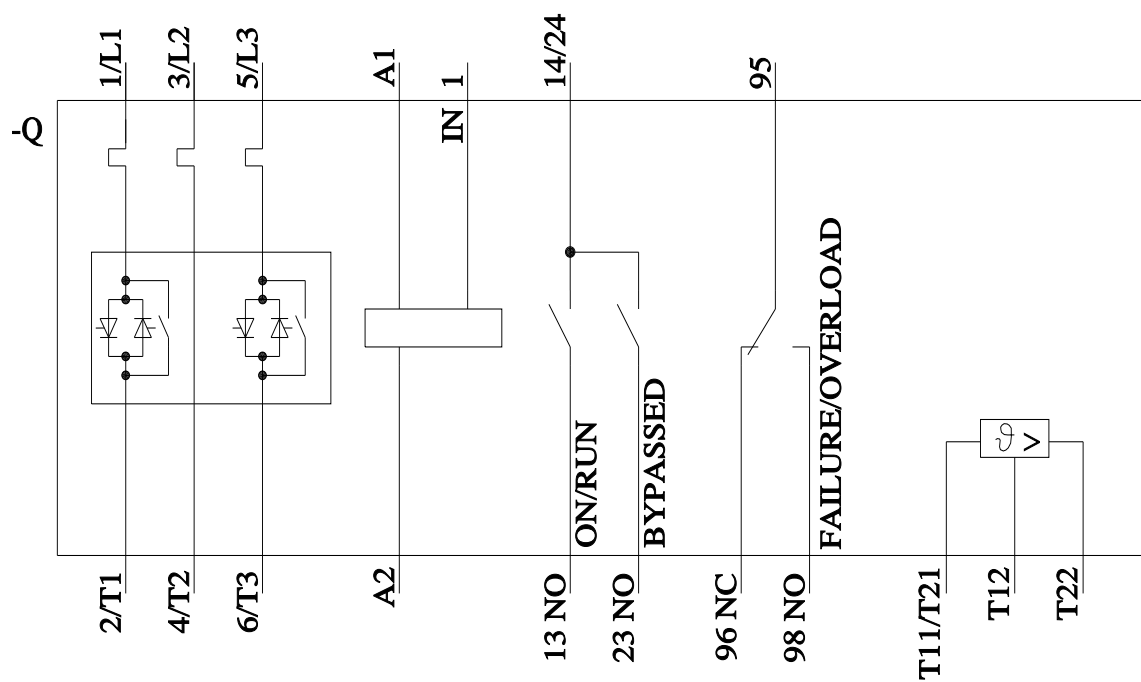
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-1TB04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4046-1TB04&lang=en





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