

SIRIUS soft starter S2 45 A, 22 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		No
• motor overload protection		No
• Evaluation of thermistor motor protection		No
• External reset		No
• Adjustable current limitation		No
• inside-delta circuit		No
Product component Motor brake output		No
Insulation voltage rated value	V	600
Reference code acc. to DIN EN 61346-2		Q
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics

Product designation		Soft starter
Operating current		
• at 40 °C rated value	A	45
• at 50 °C rated value	A	42
• at 60 °C rated value	A	39
Mechanical power output for three-phase motors		
• at 230 V — at standard circuit at 40 °C rated value	W	11 000
• at 400 V — at standard circuit at 40 °C rated value	W	22 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	10
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 [%]	%	10
Continuous operating current [% of Ie] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	6

Control electronics		
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	%	-10
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	%	-10

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	%	-10
Relative positive tolerance of the control supply voltage at DC	%	10
Display version for fault signal		red

Mechanical data		
Size of engine control device		S2
Width	mm	55
(height)	mm	160
Depth	mm	170
(mounting type)		screw and snap-on mounting
(mounting position)		With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° tiltable to the front and back
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 current circuit		screw-type terminals
Number of NC contacts for auxiliary contacts		0
Number of NO contacts for auxiliary contacts		1
Number of CO contacts for auxiliary contacts		0
Type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		
• solid		2x (1.5 ... 16 mm ²)
• finely stranded with core end processing		1.5 ... 25 mm ²
• stranded		1.5 ... 35 mm ²
Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		
• solid		2x (1.5 ... 16 mm ²)
• finely stranded with core end processing		1.5 ... 25 mm ²
• stranded		1.5 ... 35 mm ²

Type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		
• solid		2x (1.5 ... 16 mm ²)
• finely stranded with core end processing		2x (1.5 ... 16 mm ²)
• stranded		2x (1.5 ... 25 mm ²)
Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal		
• using the back clamping point		16 ... 2
• using the front clamping point		18 ... 2
• using both clamping points		2x (16 ... 2)
Type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing		2x (0.5 ... 1.5 mm ²)
Type of connectable conductor cross-sections at AWG conductors		
• 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 acc. to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• during storage acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
• during operation acc. 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		IP00

Certificates/approvals		
3RW30 36-1BB04	05/06/2019	Subject to change without notice © Copyright Siemens

General Product Approval	EMC	Declaration of Conformity
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CCC



CSA



UL



C-Tick



EG-Konf.

Declaration of Conformity	Test Certificates	other	Railway
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)

[Confirmation](#)

[Vibration and Shock](#)

UL/CSA ratings

Yielded mechanical performance [hp] for three-phase AC motor

• at 220/230 V

— at standard circuit at 50 °C rated value

hp

15

• at 460/480 V

— at standard circuit at 50 °C rated value

hp

30

Contact rating of auxiliary contacts according to UL

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,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW3036-1BB04>

Cax online generator

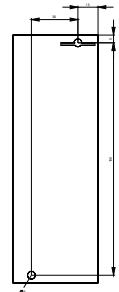
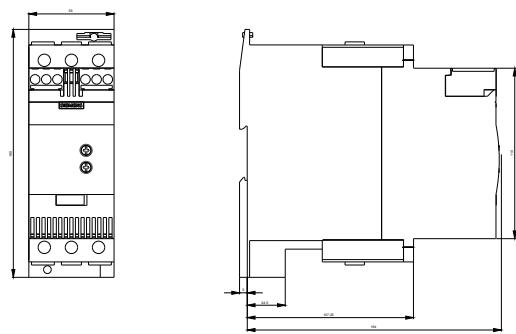
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW3036-1BB04>

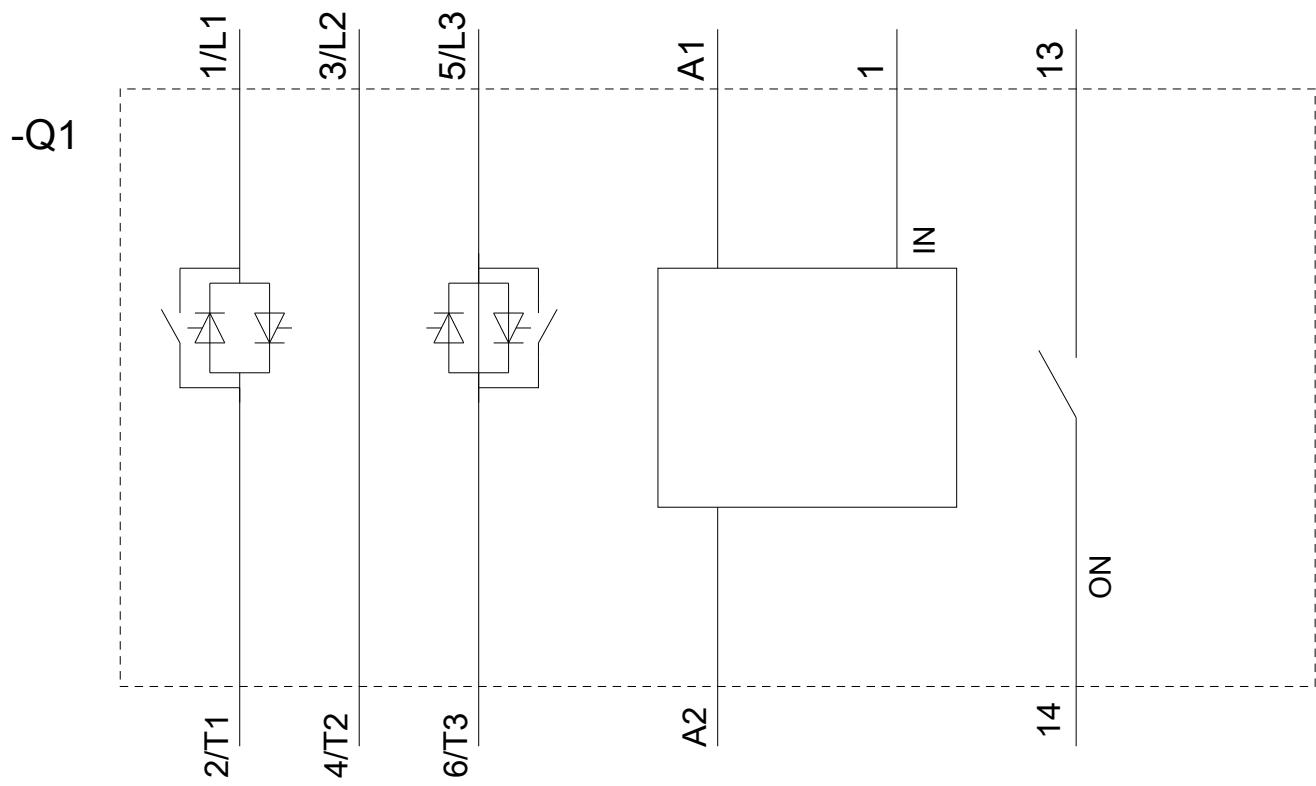
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW3036-1BB04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW3036-1BB04&lang=en





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