

SIRIUS soft starter S0 12.5 A, 5.5 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		
• 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
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		

<b>Product designation</b>		Soft starter
<b>Operating current</b>		
• at 40 °C rated value	A	12.5
• at 50 °C rated value	A	11
• at 60 °C rated value	A	10
<b>Mechanical power output for three-phase motors</b>		
• at 230 V		
— at standard circuit at 40 °C rated value	W	3 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	5 500
<b>Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	3
<b>Operating frequency rated value</b>	Hz	50 ... 60
<b>Relative negative tolerance of the operating frequency</b>	%	-10
<b>Relative positive tolerance of the operating frequency</b>	%	10
<b>Operating voltage at standard circuit rated value</b>	V	200 ... 480
<b>Relative negative tolerance of the operating voltage at standard circuit</b>	%	-15
<b>Relative positive tolerance of the operating voltage at standard circuit</b>	%	10
<b>Minimum load [%]</b>	%	20
<b>Adjustable motor current for motor overload protection minimum rated value</b>	A	5
<b>Continuous operating current [% of I<sub>e</sub>] at 40 °C</b>	%	115
<b>Power loss [W] at operating current at 40 °C during operation typical</b>	W	2

<b>Control electronics</b>		
<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage frequency 1 rated value</b>	Hz	50
<b>Control supply voltage frequency 2 rated value</b>	Hz	60
<b>Relative negative tolerance of the control supply voltage frequency</b>	%	-10
<b>Relative positive tolerance of the control supply voltage frequency</b>	%	10
<b>Control supply voltage 1 at AC at 50 Hz</b>	V	110 ... 230
<b>Control supply voltage 1 at AC at 60 Hz</b>	V	110 ... 230
<b>Relative negative tolerance of the control supply voltage at AC at 50 Hz</b>	%	-15
<b>Relative positive tolerance of the control supply voltage at AC at 50 Hz</b>	%	10
<b>Relative negative tolerance of the control supply voltage at AC at 60 Hz</b>	%	-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		S0
Width	mm	45
(height)	mm	125
Depth	mm	155
(mounting type)		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	15
• 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		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 (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), max. 1x 10 mm²
• finely stranded with core end processing		2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²)
Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal		
• using the front clamping point		1x 8, 2x (16 ... 10)
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)

<b>Type of connectable conductor cross-sections at AWG conductors</b>		
• for auxiliary contacts		2x (20 ... 14)
• for auxiliary contacts finely stranded with core end processing		2x (20 ... 16)

Ambient conditions		
<b>Installation altitude at height above sea level</b>	m	5 000
<b>Environmental category</b>		
• 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
<b>Ambient temperature</b>		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +80
<b>(derating temperature)</b>	°C	40
<b>Protection class IP</b>		IP20

Certificates/approvals		
<b>General Product Approval</b>	<b>EMC</b>	<b>For use in hazardous locations</b>
 CCC	 EAC	 ATEX
 CSA	 UL	 C-Tick

Declaration of Conformity	Test Certificates	Shipping Approval
 EG-Konf.	<a href="#">Miscellaneous</a> <a href="#">Special Test Certificate</a> <a href="#">Type Test Certificates/Test Report</a>	 LRS  PRS

other

[Confirmation](#)

UL/CSA ratings
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**Yielded mechanical performance [hp] for three-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

hp

3

hp

7.5

**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=3RW4024-1BB14>

**Cax online generator**

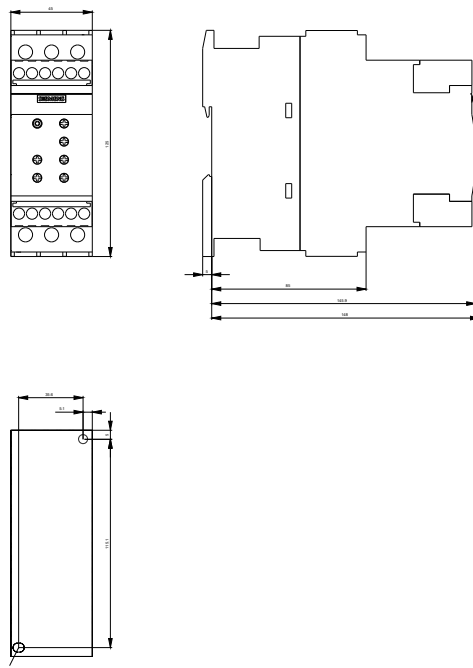
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-1BB14>

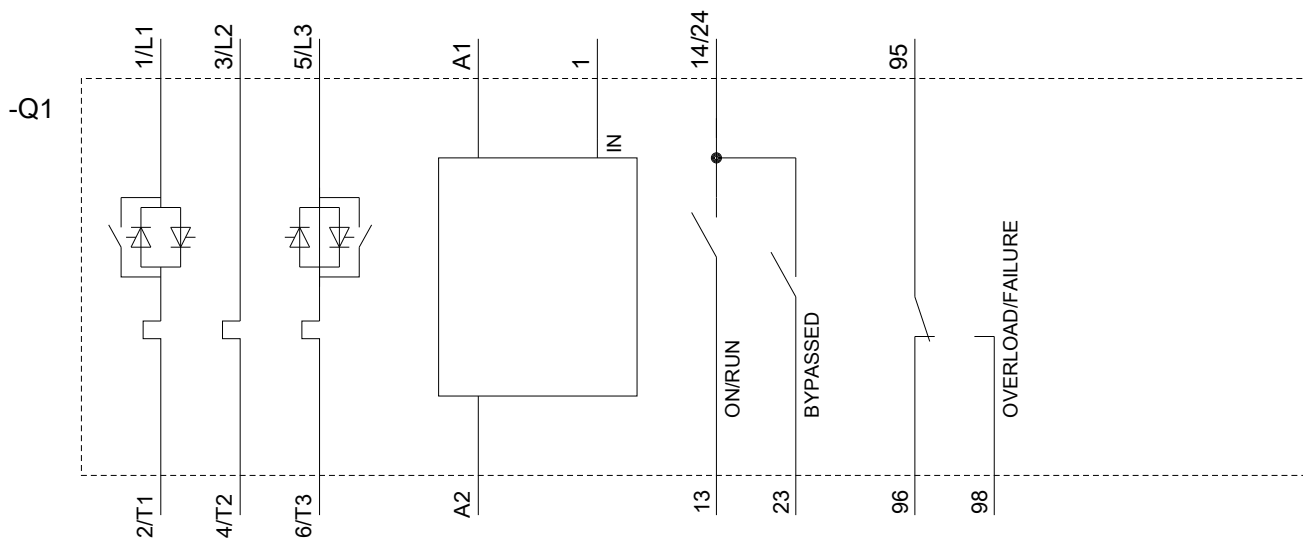
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-1BB14>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4024-1BB14&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4024-1BB14&lang=en)





last modified:

04/10/2019