

SIRIUS SOFT STARTER, S0, 12.5A, 5.5KW/400V, 40 DEGR., AC 200-480V, AC/DC 24V, SCREW TERMINALS

### General technical data

<b>product brandname</b>		SIRIUS
<ul style="list-style-type: none"> <li>Product equipment Integrated bypass contact system</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Product feature Thyristors</li> </ul>		Yes
<b>Product function</b>		
<ul style="list-style-type: none"> <li>Intrinsic device protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>motor overload protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Evaluation of thermistor motor protection</li> </ul>		No
<ul style="list-style-type: none"> <li>External reset</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Adjustable current limitation</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Inside-delta circuit</li> </ul>		No
<b>Product component Motor brake output</b>		No
<b>Equipment marking acc. to DIN EN 61346-2</b>		Q
<b>Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>		G

### Power Electronics

<b>Product designation</b>		Soft starter
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>	A	12.5
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	A	11
<ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>	A	10
<b>Mechanical power output for three-phase motors</b>		
<ul style="list-style-type: none"> <li>at 230 V           <ul style="list-style-type: none"> <li>— at standard circuit at 40 °C rated value</li> </ul> </li> </ul>	W	3 000
<ul style="list-style-type: none"> <li>at 400 V           <ul style="list-style-type: none"> <li>— at standard circuit at 40 °C rated value</li> </ul> </li> </ul>	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

Relative negative tolerance of the operating voltage at standard circuit	%	-15
Relative positive tolerance of the operating voltage at standard circuit	%	10
Minimum load [% of IM]	%	20
Adjustable motor current for motor overload protection minimum rated value	A	5
Continuous operating current [% of I <sub>e</sub> ] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	2

#### 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 60 Hz	%	-20
Relative positive tolerance of the control supply voltage at AC at 60 Hz	%	20
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		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
<b>Wire length maximum</b>	m	300
<b>Number of poles for main current circuit</b>		3

### Connections/Terminals

<b>Type of electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Number of NC contacts for auxiliary contacts</b>		0
<b>Number of NO contacts for auxiliary contacts</b>		2
<b>Number of CO contacts for auxiliary contacts</b>		1
<b>Type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point</b>		
• solid		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), max. 1x 10 mm <sup>2</sup>
• finely stranded with core end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )
<b>Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal</b>		
• using the front clamping point		1x 8, 2x (16 ... 10)
<b>Type of connectable conductor cross-sections for auxiliary contacts</b>		
• solid		2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> )
<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		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• during storage acc. to IEC 60721		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• 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

Protection class IP

IP20

## Certificates/approvals

General Product Approval	EMC	For use in hazardous locations
 CCC	 UL	 ATEX
 CSA	 EAC	 C-Tick

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

## other

[Environmental Confirmations](#)      [Confirmation](#)

## UL/CSA ratings

<b>Yielded mechanical performance [hp] for three-phase AC motor</b>		
<ul style="list-style-type: none"> <li>at 220/230 V           <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> </ul> </li> <li>at 460/480 V           <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> </ul> </li> </ul>	hp	3
	hp	7.5
<b>Contact rating of auxiliary contacts according to UL</b>		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=3RW4024-1BB04>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-1BB04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-1BB04>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4024-1BB04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4024-1BB04&lang=en)

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