

Siemens  
EcoTech



SIRIUS soft starter S2 63 A, 30 kW/400 V, 40 °C 200-480 V AC, 24 V AC/DC  
spring-type terminals



### General technical data

product brand name	SIRIUS
product designation	Soft starter
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	600 V
degree of pollution	3, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum	1 600 V
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

operational current	
• at 40 °C rated value	63 A
• at 50 °C rated value	58 A
• at 60 °C rated value	53 A
yielded mechanical performance for 3-phase motors	
• at 230 V	
— at standard circuit at 40 °C rated value	18.5 kW
• at 400 V	
— at standard circuit at 40 °C rated value	30 kW
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	15 hp
operating frequency rated value	50 ... 60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
operating voltage at standard circuit rated value	200 ... 480 V
relative negative tolerance of the operating voltage at	-15 %

<b>standard circuit</b>	
<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>	26 A
<b>continuous operating current [% of I<sub>e</sub>] at 40 °C</b>	115 %
<b>power loss [W] at operational current at 40 °C during operation typical</b>	12 W
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage frequency 1 rated value</b>	50 Hz
<b>control supply voltage frequency 2 rated value</b>	60 Hz
<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</b>	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
<b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>	-20 %
<b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>	20 %
<b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>	-20 %
<b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>	20 %
<b>control supply voltage 1 at DC rated value</b>	24 V
<b>relative negative tolerance of the control supply voltage at DC</b>	-20 %
<b>relative positive tolerance of the control supply voltage at DC</b>	20 %
<b>display version for fault signal</b>	red
<b>Mechanical data</b>	
<b>size of engine control device</b>	S2
<b>width</b>	55 mm
<b>height</b>	160 mm
<b>depth</b>	170 mm
<b>fastening method</b>	screw and snap-on mounting
<b>mounting position</b>	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
<b>required spacing with side-by-side mounting</b>	
• upwards	60 mm
• at the side	30 mm
• downwards	40 mm
<b>wire length maximum</b>	300 m
<b>number of poles for main current circuit</b>	3
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	spring-loaded 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 (1.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing	0.75 ... 25 mm <sup>2</sup>
• stranded	0.75 ... 35 mm <sup>2</sup>
<b>type of connectable conductor cross-sections for main</b>	

<b>contacts for box terminal using the back clamping point</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• stranded</li> </ul>	<p>2x (1.5 ... 16 mm<sup>2</sup>)</p> <p>1.5 ... 25 mm<sup>2</sup></p> <p>1.5 ... 35 mm<sup>2</sup></p>
<b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• stranded</li> </ul>	<p>2x (1.5 ... 16 mm<sup>2</sup>)</p> <p>2x (1.5 ... 16 mm<sup>2</sup>)</p> <p>2x (1.5 ... 25 mm<sup>2</sup>)</p>
<b>type of connectable conductor cross-sections for AWG cables for main contacts for box terminal</b>	
<ul style="list-style-type: none"> <li>• using the back clamping point</li> <li>• using the front clamping point</li> <li>• using both clamping points</li> </ul>	<p>16 ... 2</p> <p>18 ... 2</p> <p>2x (16 ... 2)</p>
<b>type of connectable conductor cross-sections for auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	<p>2x (0.25 ... 2.5 mm<sup>2</sup>)</p> <p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p>
<b>type of connectable conductor cross-sections for AWG cables</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	2x (24 ... 14)

### Ambient conditions

<b>installation altitude at height above sea level</b>	5 000 m
<b>environmental category</b>	
<ul style="list-style-type: none"> <li>• during transport according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during operation according to IEC 60721</li> </ul>	<p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p>
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p>
<b>derating temperature</b>	40 °C
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

### UL/CSA ratings

<b>yielded mechanical performance [hp] for 3-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>	<p>20 hp</p> <p>40 hp</p>
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300

### Approvals Certificates

<b>Environmental Product Declaration</b>	
<ul style="list-style-type: none"> <li>• global warming potential [CO2 eq] / during manufacturing</li> <li>• global warming potential [CO2 eq] / during sales</li> <li>• global warming potential [CO2 eq] / during operation</li> <li>• global warming potential [CO2 eq] / after end of life</li> <li>• global warming potential [CO2 eq] / total</li> </ul>	<p>26.9 kg</p> <p>0.324 kg</p> <p>158 kg</p> <p>-4.56 kg</p> <p>181 kg</p>

### Environment General Product Approval

[Environmental Confirmations](#)



Siemens EcoTech



General Product Approval	EMV	For use in hazardous locations
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Test Certificates	Maritime application	other
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

other	Railway
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[Confirmation](#)



[Special Test Certificate](#)

[Confirmation](#)

**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 for data generation and storage  
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
- 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=3RW4037-2BB04>
- Cax online generator  
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4037-2BB04>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3RW4037-2BB04>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4037-2BB04&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4037-2BB04&lang=en)



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