

SIRIUS soft starter S2 72 A, 37 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		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
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	72
• at 50 °C rated value	A	62
• at 60 °C rated value	A	60
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	37
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	35
continuous operating current [% of I <sub>e</sub> ] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	15
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

<b>control supply voltage 1 at AC</b>		
• at 50 Hz rated value	V	24
• at 60 Hz rated value	V	24
<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
<b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>	%	10
<b>control supply voltage 1 at DC rated value</b>	V	24
<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

#### Mechanical data

<b>size of engine control device</b>		S2
<b>width</b>	mm	55
<b>height</b>	mm	160
<b>depth</b>	mm	170
<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	mm	60
• at the side	mm	30
• 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 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 (1.5 ... 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 contacts for box terminal using the back clamping point</b>		
• solid		2x (1.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing		1.5 ... 25 mm <sup>2</sup>
• stranded		1.5 ... 35 mm <sup>2</sup>
<b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b>		
• solid		2x (1.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing		2x (1.5 ... 16 mm <sup>2</sup> )
• stranded		2x (1.5 ... 25 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections for AWG cables for main contacts for box terminal</b>		
• using the back clamping point		16 ... 2
• using the front clamping point		18 ... 2
• using both clamping points		2x (16 ... 2)
<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 for AWG</b>		

<b>cables</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>		2x (20 ... 14)
<ul style="list-style-type: none"> <li>• for auxiliary contacts finely stranded with core end processing</li> </ul>		2x (20 ... 16)

### Ambient conditions

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

### Certificates/ approvals

General Product Approval	EMC
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[Confirmation](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other	Railway
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[Confirmation](#)

[Vibration and Shock](#)

[Confirmation](#)

### 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</li> <li>— at standard circuit at 50 °C rated value</li> </ul>	hp	20
<ul style="list-style-type: none"> <li>• at 460/480 V</li> <li>— at standard circuit at 50 °C rated value</li> </ul>	hp	40
<b>contact rating of auxiliary contacts according to UL</b>		B300 / R300

### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RW4038-1BB04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4038-1BB04>

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



