



SIRIUS soft starter S0 12.5 A, 5.5 kW/400 V, 40 °C 200-480 V AC, 110-230 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	V	600
degree of pollution		3, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum	V	1 600
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	A	12.5
• at 50 °C rated value	A	11
• at 60 °C rated value	A	10
yielded mechanical performance for 3-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	kW	3
• at 400 V		
— at standard circuit at 40 °C rated value	kW	5.5
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	3
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	5
continuous operating current [% of I _e] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	2
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
control supply voltage 1 at AC at 50 Hz	V	110 ... 230
control supply voltage 1 at AC at 60 Hz	V	110 ... 230
relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-15
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	%	-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	150
depth	mm	155
fastening method		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		spring-loaded terminals
• for auxiliary and control circuit		spring-loaded 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 for AWG cables for main contacts for box terminal		
• using the front clamping point		1x 8, 2x (16 ... 10)
type of connectable conductor cross-sections for main contacts		
• solid		1 ... 10 mm²
• finely stranded with core end processing		1 ... 6 mm²
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 ... 2.5 mm²)

finely stranded with core end processing		2x (0.25 ... 1.5 mm²)	
type of connectable conductor cross-sections for AWG cables			
- for main contacts - for auxiliary contacts		16 ... 10, 1x 8 2x (24 ... 14)	
Ambient conditions			
installation altitude at height above sea level	m	5 000	
environmental category - during transport according to IEC 60721 - during storage according to IEC 60721 - during operation according to IEC 60721		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 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6	
ambient temperature - during operation - during storage	°C °C	-25 ... +60 -40 ... +80	
derating temperature	°C	40	
protection class IP on the front according to IEC 60529		IP20	
touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front	
Environmental footprint			
Environmental Product Declaration(EPD)		Yes	
global warming potential [CO2 eq] total	kg	121	
global warming potential [CO2 eq] during manufacturing	kg	4.24	
global warming potential [CO2 eq] during sales	kg	0.207	
global warming potential [CO2 eq] during operation	kg	117	
global warming potential [CO2 eq] after end of life	kg	-0.229	
UL/CSA ratings			
yielded mechanical performance [hp] for 3-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 hp	3 7.5	
contact rating of auxiliary contacts according to UL		B300 / R300	
Approvals Certificates			
General Product Approval		EMV	
 CCC   EG-Konf.  UL   RCM			
EMV	For use in hazardous locations	Test Certificates	Maritime application
KC	 IECEX  ATEX	Special Test Certificate Type Test Certificates/Test Report	 DNV
Maritime application	other	Railway	Environment
 LRS  PRS 	Confirmation Confirmation	 EPD	
Environment			
 Siemens EcoTech Environmental Confirmations			

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- 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=3RW4024-2BB14>

Cax online generator

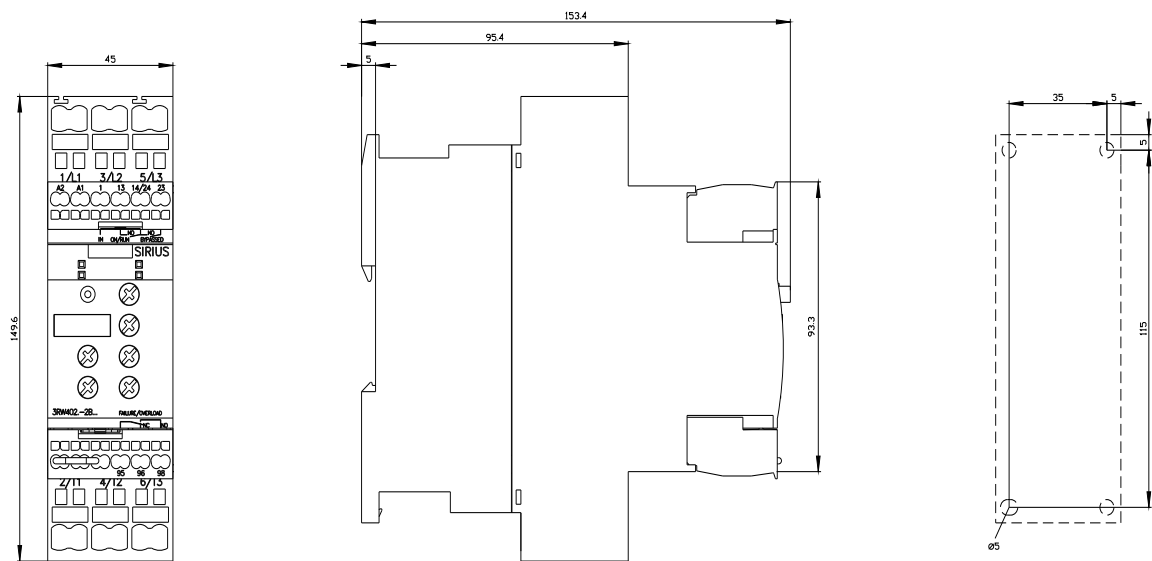
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-2BB14>

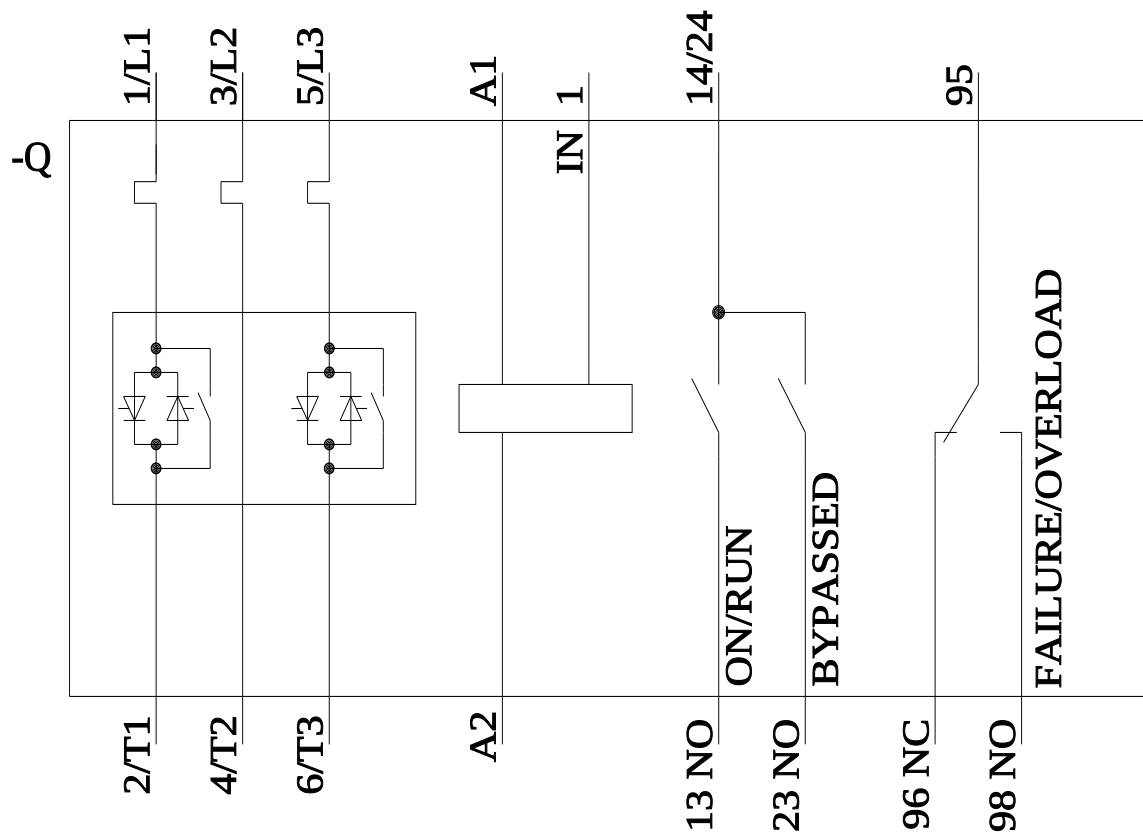
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-2BB14>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4024-2BB14&lang=en





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