SIEMENS

Data sheet 3RW40 24-2BB14

SIRIUS SOFT STARTER, S0, 12.5A, 5.5KW/400V, 40 DEGR., AC 200-480V, AC/DC 110-230V, SPRING-LOADED TERMINALS

General technical data		
product brandname		SIRIUS
• Product equipment Integrated bypass contact system		Yes
• Product feature 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
Equipment marking acc. to DIN EN 61346-2		Q
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics		
Product designation		Soft starter

Operating current		
• at 40 °C rated value	A	12.5
• at 50 °C rated value	A	11
• at 60 °C rated value	A	10
Mechanical power output for three-phase motors		
• 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
Yielded mechanical performance [hp] for three-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 [% of IM]	%	20
Adjustable motor current for motor overload protection minimum rated value	A	5
Continuous operating current [% of Ie] 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	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 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
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		spring-loaded terminals
• for auxiliary and control current 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 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 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 at AWG conductors		
• for main contacts		16 ... 10, 1x 8
• for auxiliary contacts		2x (24 ... 14)

Ambient conditions

Installation altitude at height above sea level	m	5 000
Environmental category		
• 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
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +80
Derating temperature	°C	40
Protection class IP		IP20

Certificates/approvals

General Product Approval	EMC	For use in hazardous locations

CCC CSA UL C-Tick ATEX

Declaration of Conformity	Test Certificates		Shipping Approval		
	Special Test Certificate	Type Test Certificates/Test Report			

EG-Konf. GL LRS PRS

other	
Environmental Confirmations	Confirmation

UL/CSA ratings

Yielded mechanical performance [hp] for three-phase AC motor		
• **at 220/230 V**		
— at standard circuit at 50 °C rated value	hp	3
• **at 460/480 V**		
— at standard circuit at 50 °C rated value	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

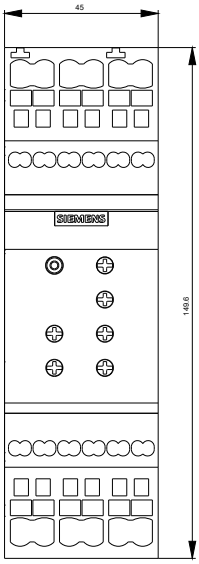
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

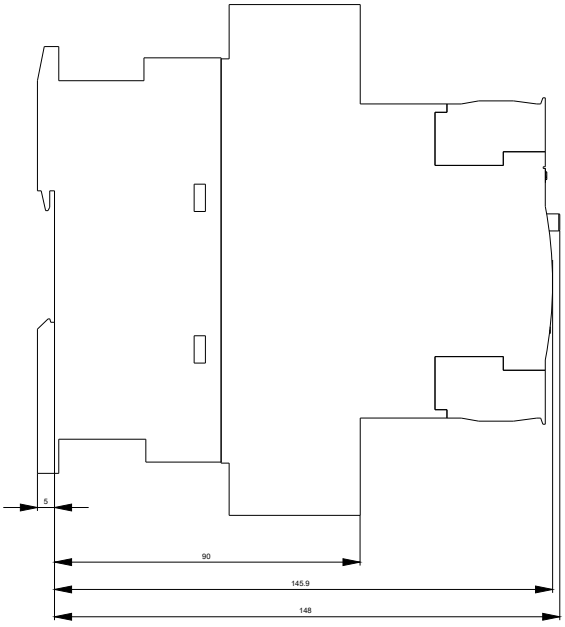
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4024-2BB14

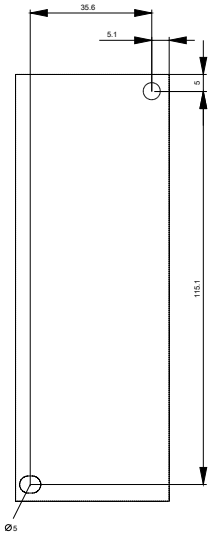
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-2BB14

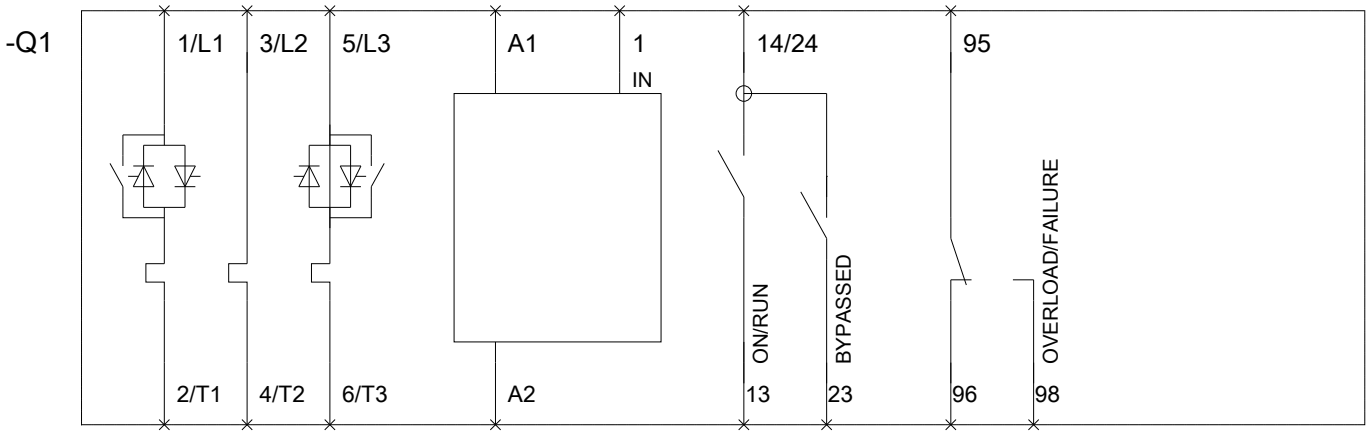
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-2BB14

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









last modified: 07/20/2017