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Data sheet 3RW40 27-1BB04

SIRIUS soft starter S0 32 A, 15 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 acc. to DIN EN 61346-2		Q
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

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Power Electronics		
Product designation		Soft starter
Operating current		
• at 40 °C rated value	A	32
• at 50 °C rated value	A	29
• at 60 °C rated value	A	26
Mechanical power output for three-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	7 500
• at 400 V		
— at standard circuit at 40 °C rated value	W	15 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	7.5
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	17
Continuous operating current [% of Ie] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	13

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 rated value	V	24
• at 60 Hz rated value	V	24
Relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-20
Relative positive tolerance of the control supply voltage at AC at 50 Hz	%	20

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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
Wire length maximum	m	300
Number of poles for main current circuit		3

Connections/ Terminals

Type of electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type 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 auxiliary contacts		

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• solid		2x (0.5 ... 2.5 mm²)
• finely stranded with core end processing		2x (0.5 ... 1.5 mm²)
Type of connectable conductor cross-sections at AWG conductors		
• for auxiliary contacts		2x (20 ... 14)
• for auxiliary contacts finely stranded with core end processing		2x (20 ... 16)

Ambient conditions

Installation altitude at height above sea level	m	5 000
Environmental category		
• during transport acc. to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• during storage acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
• 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

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General Product Approval				EMC	For use in hazardous locations
CCC	CSA	UL		RCM	ATEX

Declaration of Conformity		Test Certificates		Marine / Shipping	
EG-Konf.	Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	LRS	PRS

Marine / Shipping	other
	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	7.5
• **at 460/480 V**		
— at standard circuit at 50 °C rated value	hp	20
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,…)
www.siemens.com/sirius/catalogs

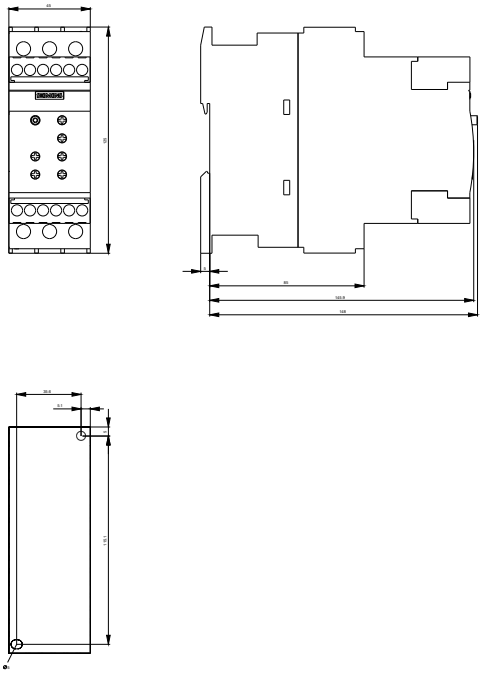
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4027-1BB04

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4027-1BB04

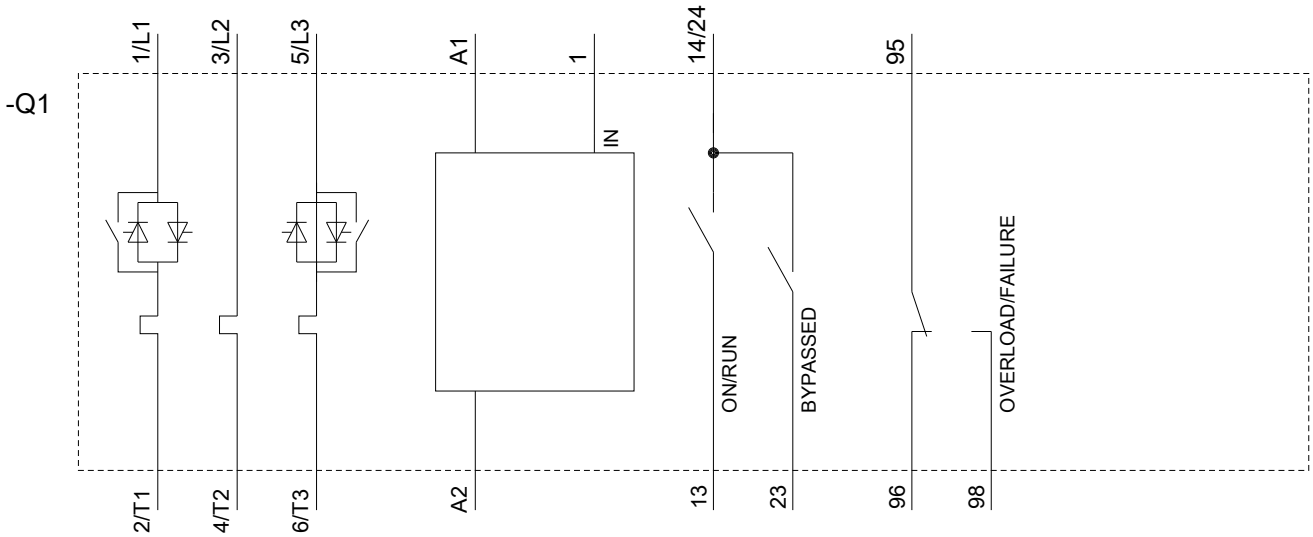
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RW4027-1BB04

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4027-1BB04&lang=en

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