SIEMENS

Data sheet 3RW30 16-2BB04



SIRIUS SOFT STARTER, SIZE S00, 9A, 4KW/400V, 40 DEGREES, 200-480V AC, 24V AC/DC, SPRING-LOADED TERMINALS

General technical data:		
product brand name	SIRIUS	
Product feature		
 integrated bypass contact system 	Yes	
Thyristors	Yes	
Product function		
 Intrinsic device protection 	No	
 motor overload protection 	No	
 Evaluation of thermistor motor protection 	No	
External reset	No	
 Adjustable current limitation 	No	
• 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 starters for standard applications
Operating current		
• at 40 °C Rated value	Α	9
● at 50 °C Rated value	Α	8
● at 60 °C Rated value	Α	7
Mechanical power output for three-phase motors		
● at 230 V		

	147	
— at standard circuit at 40 °C Rated value	W	2 200
● at 400 V		
 at standard circuit at 40 °C Rated value 	W	4 000
yielded mechanical performance [hp] for three-phase	metric	2
AC motor at 200/208 V at standard circuit at 50 °C	hp	
Rated value		
Operating frequency Rated value	Hz	50 60
Relative negative tolerance of the operating	%	-10
frequency		
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 in % of I_M	%	10
Continuous operating current in % of I_e at 40 °C	%	115
Active power loss at operating current at 40 °C during	W	1
operation typical		
Control electronics:		AO/DO
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	%	10
voltage frequency		
Control supply voltage 1 with AC	\ /	24
at 50 Hz Rated value	V	24
at 60 Hz Rated value	V	24
Relative negative tolerance of the control supply voltage with AC at 60 Hz	%	-20
Relative positive tolerance of the control supply voltage with AC at 60 Hz	%	20
Control supply voltage 1 for DC Rated value	V	24
Relative negative tolerance of the control supply voltage for DC	%	-20
Relative positive tolerance of the control supply voltage for DC	%	20
Display version for fault signal		red
Mechanical data:		
Size of engine control device		S00
Width	mm	45
Height	mm	120

Mounting type screw and snap-on mounting mounting position With vertical mounting surface */-10" rotatable, with vertical mounting surface */-10" rotatable, with vertical mounting surface */-10" tiltable to the front and back Required spacing with side-by-side mounting mm 60 • upwards mm 40 • downwards mm 40 Installation attitude at height above sea level m 5 000 Cable length maximum m 300 Number of poles for main current circuit 3 **Onnections/ Terminals** • for main current circuit spring-loaded terminals • for main current circuit spring-loaded terminals * for main current circuit spring-loaded terminals Number of NC contacts for auxiliary contacts 0 Number of NC contacts for auxiliary contacts 0 Type of connectable conductor cross-section for main contacts of box terminal using the front clamping point 2x (1 2.5 mm²), 2x (2.5 6 mm²) • solid solid 2x (16 10) • finely stranded with core end processing 1 4 mm² 1 2.5 mm² 1 2.5 mm² • s	Depth	mm	150
Required spacing with side-by-side mounting • upwards • at the side • downwards Installation altitude at height above sea level Cable length maximum Mumber of poles for main current circuit • for auxillary and control current circuit • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxillary contacts • for main contacts • for main contacts	Mounting type		screw and snap-on mounting
• upwards • at the side • downwards mm	mounting position		vertical mounting surface +/- 10° tiltable to the front
at the side downwards mm do downwards mm do downwards mm do linstallation altitude at height above sea level m 5 000 Cable length maximum Number of poles for main current circuit of or main current circuit of or main current circuit spring-loaded terminals Type of electrical connection of main current circuit spring-loaded terminals Number of NC contacts for auxiliary contacts Number of NC contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts 0 Type of connectable conductor cross-section for anian contacts for box terminal using the front clamping point ousing the front clamping point 2x (1 2.5 mm²), 2x (2.5 6 mm²) 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1.6 10) Type of connectable conductor cross-section for main contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts outlined with core end processing Type of connectable conductor cross-section for auxiliary contacts	Required spacing with side-by-side mounting		
Sommards	• upwards	mm	60
Installation altitude at height above sea level m 300 Cable length maximum m 300 Number of poles for main current circuit 3 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 Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts 1 yee of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • for main contacts • for main contacts • for main contacts	• at the side	mm	15
Cable length maximum Number of poles for main current circuit 2	• downwards	mm	40
Number of poles for main current circuit Connections/ Terminals: Type of electrical connection • for main current circuit • for auxiliary and control current circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts • for main contacts 16 12	Installation altitude at height above sea level	m	5 000
Type of electrical connection • for main current circuit • for auxiliary and control current circuit Number of NC contacts for auxiliary contacts Number of NC contacts for auxiliary contacts Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts for main contacts for box terminal • using the front clamping point Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts • for main contacts • for main contacts	-	m	300
Type of electrical connection • for main current circuit • for auxiliary and control current circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • using the front clamping point 1	Number of poles for main current circuit		3
• for main current circuit • for auxiliary and control current circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal • using the front clamping point 1	Connections/ Terminals:		
• for auxiliary and control current circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts • for main contacts 16 12	Type of electrical connection		
Number of NC contacts for auxiliary contacts Number of CO contacts for auxiliary contacts 1 Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point solid finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts solid using the front clamping point Type of connectable conductor cross-section for amin contacts solid finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts solid finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts solid finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts solid finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts for main contacts 16 12	• for main current circuit		spring-loaded terminals
Number of NO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal • using the front clamping point 2x (1 2.5 mm²), 2x (2.5 6 mm²) 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1.6 10) Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts 1 4 mm² 2x (0.25 2.5 mm²) 2x (0.25 1.5 mm²)	 for auxiliary and control current circuit 		spring-loaded terminals
Number of CO contacts for auxiliary contacts Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal • using the front clamping point 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1.6 10) Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts 16 12	Number of NC contacts for auxiliary contacts		0
Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal • using the front clamping point Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts 16 12	Number of NO contacts for auxiliary contacts		1
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Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal • using the front clamping point Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts 16 12	• solid		2x (1 2.5 mm²), 2x (2.5 6 mm²)
AWG conductors for main contacts for box terminal • using the front clamping point Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • solid 2x (16 10) 1 4 mm² 1 2.5 mm² Type of connectable conductor cross-section for auxiliary contacts • solid 2x (0.25 2.5 mm²) Type of connectable conductor cross-section for AWG conductors • for main contacts • for main contacts	• finely stranded with core end processing		2x (1.5 2.5 mm²), 2x (2.5 6 mm²)
Type of connectable conductor cross-section for main contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts • solid • solid 2x (0.25 2.5 mm²) Type of connectable conductor cross-section for auxiliary contacts • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts 16 12	<u>.</u>		
main contacts	 using the front clamping point 		2x (16 10)
 finely stranded with core end processing Type of connectable conductor cross-section for auxiliary contacts solid finely stranded with core end processing finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors for main contacts 1 2.5 mm² 2x (0.25 2.5 mm²) 2x (0.25 1.5 mm²) 16 12 			
Type of connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts 16 12	• solid		1 4 mm²
auxiliary contacts • solid • finely stranded with core end processing Type of connectable conductor cross-section for AWG conductors • for main contacts 16 12	• finely stranded with core end processing		1 2.5 mm²
 ◆ finely stranded with core end processing 2x (0.25 1.5 mm²) Type of connectable conductor cross-section for AWG conductors ◆ for main contacts 16 12 	••		
Type of connectable conductor cross-section for AWG conductors • for main contacts 16 12	• solid		2x (0.25 2.5 mm²)
AWG conductors ● for main contacts 16 12	 finely stranded with core end processing 		2x (0.25 1.5 mm²)
• for auxiliary contacts 2x (24 14)	• for main contacts		16 12
	• for auxiliary contacts		2x (24 14)
	Ambient conditions: Ambient temperature		

nbient 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 Test
Certificates











Type Test
Certificates/Test
Report

other

Environmental Confirmations

Declaration of Conformity

other

UL/CSA ratings:		
yielded mechanical performance [hp] for three-phase		
AC motor		
● at 220/230 V		
— at standard circuit at 50 °C Rated value	metric hp	2
● at 460/480 V		
— at standard circuit at 50 °C Rated value	metric hp	5
Contact rating of the auxiliary contacts acc. to UL		B300 / R300

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW30162BB04

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

http://support.automation.siemens.com/WW/view/en/3RW30162BB04/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW30162BB04&lang=en







