SIEMENS

Data sheet

3RW4038-2BB14



SIRIUS soft starter S2 72 A, 37 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 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
Power Electronics		
product designation		Soft starter
operational current		
 at 40 °C rated value 	А	72
● at 50 °C rated value		62
• at 60 °C rated value	А	60
yielded mechanical performance for 3-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	22 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	37 000
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	%	10

standard circuit	_	
minimum load [%]	%	20
adjustable motor current for motor overload protection minimum rated value	A	35
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during	- 70 W	15
operation typical	٧V	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	%	-10
voltage frequency	_	
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		S2
size of engine control device width	mm	S2 55
	mm	
width	-	55
width height	mm	55 160 170 screw and snap-on mounting
width height depth	mm	55 160 170
width height depth fastening method	mm	 55 160 170 screw and snap-on mounting 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
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards	mm	 55 160 170 screw and snap-on mounting 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
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side	mm	55 160 170 screw and snap-on mounting 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 60 30
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width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum	mm mm mm mm	 55 160 170 screw and snap-on mounting 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 60 30 40 300
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit	mm mm mm mm	 55 160 170 screw and snap-on mounting 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 60 30 40
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals	mm mm mm mm	 55 160 170 screw and snap-on mounting 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 60 30 40 300
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection	mm mm mm mm	 55 160 170 screw and snap-on mounting 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 60 30 40 300 3
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0 2
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit of r auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0 2 1
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit 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 type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point • solid	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0 2 1 2x (1.5 16 mm²)
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit of r auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0 2 1
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of Solid • solid • finely stranded with core end processing	mm mm mm mm	55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals spring-loaded terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm²

main contacts for box clamping point	x terminal using the	back				
• solid				2x (1.5 16 r	nm²)	
	vith core end processir	na		1.5 25 mm ²		
 stranded 	···· · · · · · · · · · · · · · · · · ·	.5		1.5 35 mm ²		
type of connectable of main contacts for box points						
solid				2x (1.5 16 r	nm²)	
 finely stranded w 	vith core end processir	ng		2x (1.5 16 r	,	
 stranded 		0		2x (1.5 25 r		
type of connectable of cables for main conta						
 using the back c 	lamping point			16 2		
 using the front cl 	lamping point			18 2		
 using both clamp 	ping points			2x (16 2)		
type of connectable of auxiliary contacts	conductor cross-sect	tions for				
 solid 				2x (0.25 2.5	5 mm²)	
 finely stranded w 	vith core end processir	ng		2x (0.25 1.5	5 mm²)	
type of connectable of cables	conductor cross-sect	tions at AWG				
 for auxiliary cont 	acts			2x (24 14)		
Multions						
installation altitude a	t height above sea le	evel	m	5 000		
environmental catego	ory					
during transport acc. to IEC 60721			2K2, 2C1, 2S	1, 2M2 (max. fall heig	ht 0.3 m)	
 during storage a 	cc. to IEC 60721				asional condensation) ist not get inside the d	
 during operation 	acc. to IEC 60721				ation of ice, no conder and must not get into t	
ambient temperature						
 during operation 			°C	-25 +60		
 during storage 			°C	-40 +80		
derating temperature			°C	40		
protection class IP or				IP20		
touch protection on t		60529		finger-safe, fo	r vertical contact from	the front
ertificates/ approvals						
General Product App	oroval				EMC	For use in hazard ous locations
6				rnr	A	
<u> </u>	<u> </u>	৻৻ঢ়		LHL		(EX)
Declaration of Confo	ormity	Test Certificat	es		Marine / Shipping	
<u>Miscellaneous</u>	CE EG-Konf.	<u>Type Test Cert</u> ates/Test Rep		ecial Test Certific- ate	Lloyds Register urs	PRS
Marine / Shipping	other	Railway				



UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 220/230 V		
 — at standard circuit at 50 °C rated value 	hp	20
• at 460/480 V		
 — at standard circuit at 50 °C rated value 	hp	40
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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4038-2BB14

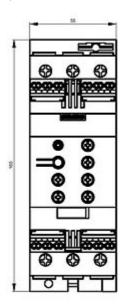
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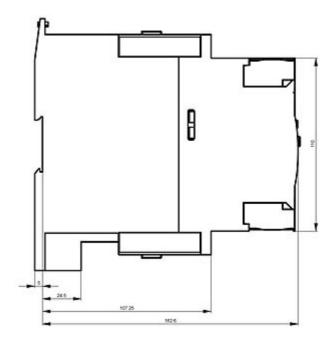
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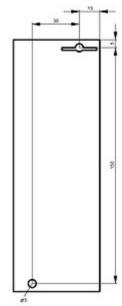
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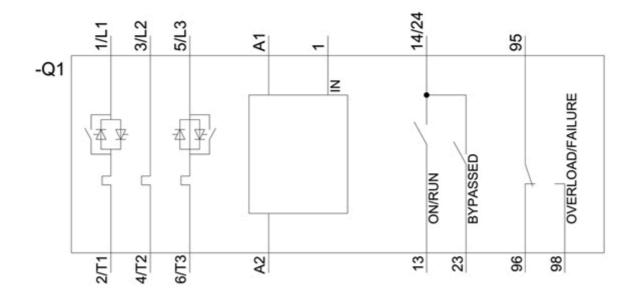
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4038-2BB14&lang=en









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