SIEMENS

Data sheet 3RW4056-6BB44



SIRIUS soft starter S6 162 A, 90 kW/400 V, 40 °C 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5056-6AB14<<

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 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		
product designation		Soft starter
operational current		
 at 40 °C rated value 	Α	162
 at 50 °C rated value 	Α	145
at 60 °C rated value	А	125
yielded mechanical performance for 3-phase motors ● at 230 V		
 — at standard circuit at 40 °C rated value 	kW	45
• at 400 V		
 at standard circuit at 40 °C rated value 	kW	90
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	40
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	200 460
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	Α	87
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during		75
operation typical	VV	75
Control circuit/ Control	_	
type of voltage of the control supply voltage		AC
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	230
at 60 Hz rated value	V	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
display version for fault signal		red
Mechanical data		
size of engine control device		S6
width	mm	120
height	mm	198
depth	mm	250
fastening method		screw fixing
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	100
at the side	mm	5
downwards	mm	75
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		
for main current circuit		busbar connection
for auxiliary and control circuit number of NC contacts for auxiliary contacts.		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 type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		1
finely stranded with core end processing		16 70 mm²
finely stranded without core end processing		16 70 mm²
stranded stranded stranded stranded		16 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		10 10 Hilli
finely stranded with core end processing		16 70 mm²
finely stranded without core end processing		16 70 mm²
• stranded		16 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		

Intelly stranded with core end processing Intelligence of the stranded without core end processing Intelligence of connectable conductor cross-sections at AWG cables for main contacts for box terminal Intelligence of connectable conductor cross-sections at AWG cables for main contacts for box terminal Intelligence of connectable conductor cross-sections for DIN cable lug for main contacts Intelligence of connectable conductor cross-sections for DIN cable lug for main contacts Intelligence of connectable conductor cross-sections for auxiliary contacts Intelligence of connectable conductor cross-sections for auxiliary contacts Intelligence of connectable conductor cross-sections at AWG cables Intelligence of connectable conductor cross-sections of connectable conductor cross-sections at AWG cables Intelligence of connectable conductor cross-sections of conne			4 50 2 4 70 2
strainded max. 2x 70 mm² type of connectable conductor cross-sections at AWG cables for main contacts for box terminal using the back clamping point using the front clamping point using both clamping point using both clamping points using both clamping point type of connectable conductor cross-sections for DIN cable lug for main contacts inely stranded 2x (1695 mm²) 2x (25120 mm²) type of connectable conductor cross-sections for auxiliary contacts is solid in finely stranded with core end processing type of connectable conductor cross-sections at AWG cables if for auxiliary contacts if or auxiliary contacts if or auxiliary contacts finely stranded with core end processing Amblent conditions installation altitude at height above sea level environmental category during storage according to IEC 60721 during storage according to IEC 60721 aduring operation according to IEC 60721 aduring operation according to IEC 60721 aduring storage during storage during storage during storage during storage during storage according to IEC 60721 aduring storage during storage according to IEC 60721 aduring storage according to IEC 60721 aduring storage according to IEC 60721 aduring storage during storage according to IEC 60721 aduring storage according to IEC 60721 according	finely stranded with core end processing		max. 1x 50 mm², 1x 70 mm²
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal • using the back clamping point • using both clamping point • using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for	, ,		
eables for main contacts for box terminal • using the back clamping point • using the front clamping point • using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for on au		-	max. 2x 70 mm ²
• using the front clamping point • using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for wathicary contacts • for auxiliary contacts •	71		
* using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded • stranded • stranded • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level • during storage according to IEC 60721 • during operation according to IEC 60721 • during storage • during operation • during operation • during storage • C • C • Jeon with cover • C • C • Ding: P20 with cover 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	 using the back clamping point 		6 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage derating temperature • during storage derating temperature or during storage finely stranded 2x (16 95 mm²) 2x (0.5 1.5 mm²) 2x (2 16) 2	 using the front clamping point 		6 2/0
eable lug for main contacts • finely stranded • stranded • stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation according to IEC 60721 ambient temperature • during storage • derating temperature • during storage derating temperature • during storage derating temperature • for auxiliary contacts 2x (15 25 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 14) 2x (20 14) 2x (20 16) 2x (20 16) 2x (20 14) 2x (20 16) 2	using both clamping points		max. 2x 1/0
stranded type of connectable conductor cross-sections for auxiliary contacts solid solid finely stranded with core end processing type of connectable conductor cross-sections at AWG cables for main contacts for auxiliary contacts	71		
type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during storage • during storage • during storage • during temperature • during storage • during temperature • during storage • during storage • C -25 +60 • C -40 +80 derating temperature • C 1P00; IP20 with cover times 2x (0.5 2.5 mm²) 2x (20 14) 2x (20 14) 2x (20 14) 2x (20 16) 2x (20 14) 2x (20 16) 2x (20	finely stranded		2x (16 95 mm²)
auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during operation according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during storage • during storage • during temperature • during operation • during storage • during storage • during storage • curve temperature • during operation • during storage • curve temperature • during operation • curve temperature • during storage • curve temperature	stranded		2x (25 120 mm²)
• finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during operation according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during storage • C -25 +60 • during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 2x (20 1.5 mm²) 4 250 kcmil 2x (20 14) 2x (20 16)			
type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during storage • during storage • during storage • for condensation, according to IEC 60721 ambient temperature • during operation • during storage • for condensation of ice, no condensation), acc (no salt mist), asc (sand must not get into the devices), and (salt mist), asc (sand must not get into the devices).	• solid		2x (0.5 2.5 mm²)
e for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during operation • during storage current • during operation • during storage current • during operation • during storage • during storage • during operation • during storage • current • during storage	finely stranded with core end processing		2x (0.5 1.5 mm²)
• for auxiliary contacts • for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 ax (20 14) 2x (20 16)	••		
for auxiliary contacts finely stranded with core end processing Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 • during operation according to IEC 60721 • during operation • during storage • during storage • during storage • during operation • during storage • during temperature • cc • during temperature • during temperature • cc • during temperature • cc • during temperature • cc • during temperature • during temperature • cc • during temperature • cc • during temperature • during temperature • during temperature • cc • during temperature • during temperature • cc • during temperature • during temperature • during temperature • during temperature • furing temperature • during temperature • during tempera	 for main contacts 		4 250 kcmil
Ambient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during storage • during storage • comparison • comp	 for auxiliary contacts 		2x (20 14)
installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during temperature • for during temperature • during temperature • during temperature • during temperature • for during temperature • during temperature • during temperature • for during temperature • for during temperature • during temperature • for during temper	, ,		2x (20 16)
environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during temperature • during operation • c • during temperature • during temperature • during storage • during storage • c • during temperature • during temperature • during temperature • during temperature • finger-safe, for vertical contact from the front with cover	Ambient conditions		
 during transport according to IEC 60721 during storage according to IEC 60721 during storage according to IEC 60721 during operation according 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 during storage during storage derating temperature derating temperature protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover 	installation altitude at height above sea level	m	5 000
 during storage according to IEC 60721 during operation according to IEC 60721 during operation according 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 during storage derating temperature c derating temperature protection class IP on the front according to IEC 60529 during storage (a) c during storage (b) c during storage (c) during storage (c)	environmental category		
Stand must not get inside the devices), 1M4 during operation according to IEC 60721 ambient temperature during operation during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 182 (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 **C -25 +60 -25 +80 derating temperature **C 40 IP00; IP20 with cover	 during transport according to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
mist), 3S2 (sand must not get into the devices), 3M6 ambient temperature • during operation • during storage • C -25 +60 • during storage ° C -40 +80 derating temperature ° C 40 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	 during storage according to IEC 60721 		
 ◆ during operation ◆ during storage ◆ C ←40 +80 derating temperature ◆ C +40 Protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover 	 during operation according to IEC 60721 		
● during storage derating temperature °C 40 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	ambient temperature		
derating temperature °C 40 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	during operation	°C	-25 +60
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	during storage	°C	-40 +80
touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover	derating temperature	°C	40
			IP00; IP20 with cover
Certificates/ approvals	touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front with cover
	Certificates/ approvals		

General Product Approval

EMC





Confirmation







For use in hazardous locations Declaration of Conformity

Test Certificates

Marine / Shipping

other

(£x)



Special Test Certificate





Confirmation

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	50
• at 460/480 V		
 at standard circuit at 50 °C rated value 	hp	100

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=3RW4056-6BB44

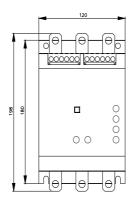
Cax online generator

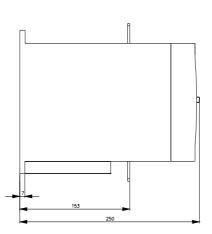
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4056-6BB44

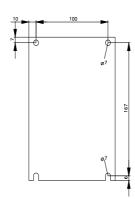
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

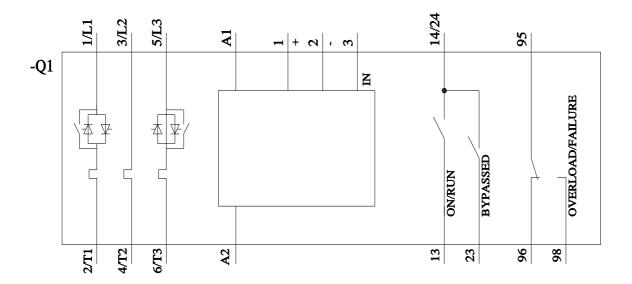
https://support.industry.siemens.com/cs/ww/en/ps/3RW4056-6BB44

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RW4056-6BB44&lang=en









last modified: 1/16/2022 🖸