SIEMENS

Product data sheet 3RW4046-1BB14

SIRIUS SOFT STARTER, S3, 80A,
45KW/400V, 40 DEGR., AC 200-480V,
AC/DC 110-230V, SCREW TERMINALS

General details:		
product brand name		SIRIUS
Product equipment		
• integrated bridging contact system		Yes
• thyristors		Yes
Product function		
• intrinsic device protection		Yes
• motor overload protection		Yes
• evaluation of thermal resistor motor protection		No
• reset external		Yes
• adjustable current limitation		Yes
• inside-delta circuit		No
Product component / outlet for enine brake		No
Item designation		
• according to DIN EN 61346-2		Q
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		G

Power Electronics:		
product designation		soft starters for standard applications
Operating current		

• at 40 °C / rated value	A	80
• at 50 °C / rated value	A	73
• at 60 °C / rated value	A	66
Emitted mechanical power / for three-phase servomotors		
• at 230 V / at standard switching / at 40 °C		
• rated value	W	22,000
• at 400 V / at standard switching / at 40 °C		
• rated value	W	45,000
yielded mechanical performance (hp) / for three-phase squirrel cage motors / at 200/208 V / at standard circuit / at 50 °C / rated v alue	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 / with standard circuit / rated value	V	200 … 480
Relative negative tolerance / of the operating voltage / with standard circuit	%	-15
Relative positive tolerance / of the operating voltage / with standard circuit	%	10
Minimum load in % of I_M	%	20
Adjustable rated current / of the motor / for motor overload protection / minimum	A	43
Continuous operating current in % of I_e / at 40°C	%	115
Active power loss / at operating current / at 40°C / during operating phase / typical	W	12

Control electronics:		
Type of voltage / of the controlled 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 50 Hz / for AC	V	110 … 230
Control supply voltage / 1 / at 60 Hz / for AC	V	110 … 230
Relative negative tolerance / of the control supply voltage / at 60 Hz / for AC	%	-15
Relative positive tolerance / of the control supply voltage / at 60 Hz / for AC	%	10
Control supply voltage / 1 / for DC	V	110 … 230

Relative negative tolerance / of the control supply voltage / for DC	%	-15
Relative positive tolerance / of the control supply voltage / for DC	%	10
Type of display / for fault signal		red

Mechanical design:

Size of the engine control device		S3
Width	mm	70
Height	mm	170
Depth	mm	190
Type of mounting		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
Distance, to be maintained, to the ranks assembly		
• upwards	mm	60
• sidewards	mm	30
• downwards	mm	40
Installation altitude / at a height over sea level	m	5,000
Cable length / maximum	m	300
Number of poles / for main current circuit		3

Electrical connections:

Design of the 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 change-over switches / for auxiliary contacts		1
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point		
• solid		2x (2.5 ... 16 mm2)
• finely stranded / with conductor end processing		2.5 ... 35 mm²
• stranded		4 ... 70 mm2
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point		
• solid		2x (2.5 ... 16 mm2)
• finely stranded / with conductor end processing		2.5 ... 50 mm²
• stranded		10 ... 70 mm2

Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points		
• solid		2x (2.5 ... 16 mm2)
• finely stranded / with conductor end processing		2x (2.5 ... 35 mm²)
• stranded		2x (10 ... 50 mm2)
Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal		
• when using the back cl		2x (10 ... 1/0)
• when using the front c		2x (10 ... 1/0)
• when using both clampi		10 ... 2/0
Type of the connectable conductor cross-section / for DIN cable lug / for main contacts		
• finely stranded		2 x (10 ... 50 mm2)
• stranded		2x (10 ... 70 mm2)
Type of the connectable conductor cross-section		
• for AWG conductors / for main contacts		2x (7 ... 1/0)
Type of the connectable conductor cross-section		
• for auxiliary contacts		
• solid		2x (0.5 ... 2.5 mm²)
• finely stranded / with conductor end processing		2x (0.5 ... 1.5 mm²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)
• finely stranded / with wire end proc		2x (20 ... 16)

Ambient conditions:

Ambient temperature		
• during operating	°C	-25 … +60
• during storage	°C	-40 … +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/approvals:

General Product Approval				EMC	For use in hazardous locations
CCC	CSA	GOST	UL	C-TICK	ATEX

Test Certificates	Shipping Approval			other	
Type Test Certificates/Test Report	GL	LRS	PRS	Declaration of Conformity	Environmental Confirmations

UL/CSA ratings

yielded mechanical performance (hp) / for three-phase squirrel cage motors		
• at 220/230 V / at standard circuit		
• at 50 °C / rated value	hp	25
• at 460/480 V / at standard circuit		
• at 50 °C / rated value	hp	50
Contact rating designation / for auxiliary contacts / according to UL		B300 / R300

Further information:

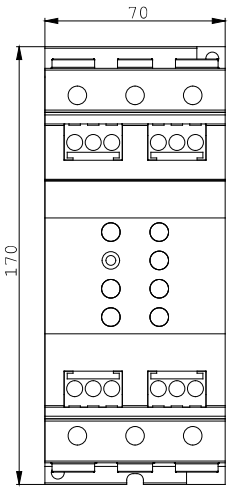
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

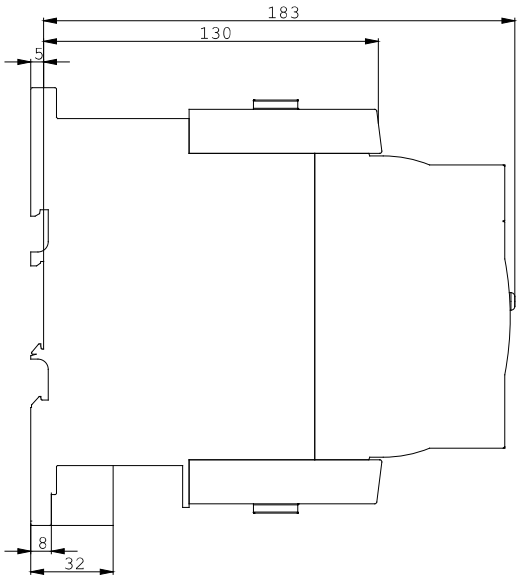
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

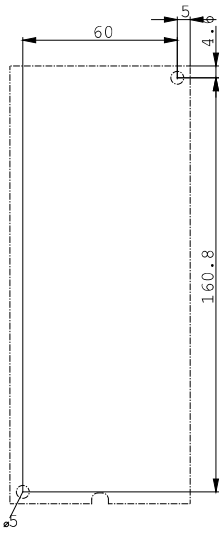
CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RW4046-1BB14/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4046-1BB14







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