SIEMENS

Data sheet 3RW4056-6BB35

SIRIUS soft starter S6 145 A, 150 hp/575 V, 50 °C 400-600 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5056-6AB15<<

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	A	162
● at 50 °C rated value	A	145
● at 60 °C rated value	A	125
yielded mechanical performance for 3-phase motors		
● at 400 V		
— at standard circuit at 40 °C rated value	W	90 000
● at 500 V		
— at standard circuit at 40 °C rated value	W	110 000
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	400 ... 600
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	87
continuous operating current [% of Ie] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	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	115
● at 60 Hz rated value	V	115
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		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		
● 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 the back clamping point		
● 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		
● finely stranded with core end processing		max. 1x 50 mm², 1x 70 mm²
● finely stranded without core end processing		max. 1x 50 mm², 1x 70 mm²
● stranded		max. 2x 70 mm²
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal		
● using the back clamping point		6 ... 2/0
● using the front clamping point		6 ... 2/0
● using both clamping points		max. 2x 1/0
type of connectable conductor cross-sections for DIN cable lug for main contacts		
● finely stranded		2x (16 ... 95 mm²)
● stranded		2x (25 ... 120 mm²)
type of connectable conductor cross-sections for auxiliary contacts		
● 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 cables		
● for main contacts		4 ... 250 kcmil
● 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 on the front acc. to IEC 60529		IP00; IP20 with cover
touch protection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front with cover

Certificates/ approvals

General Product Approval				EMC	For use in hazard-ous locations
CSA	CCC	UL	EAC	RCM	ATEX

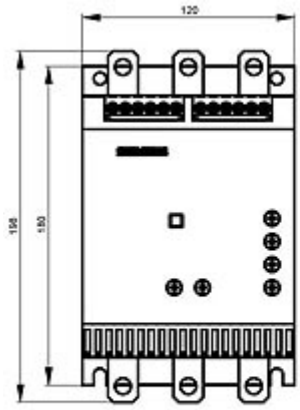
Declaration of Conformity	Test Certificates	Marine / Shipping		other
EG-Konf.	Special Test Certific-ate	LRS	DNV·GL	Confirmation

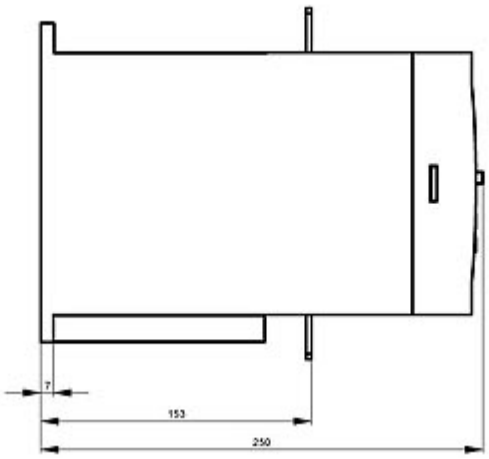
UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
● at 460/480 V		

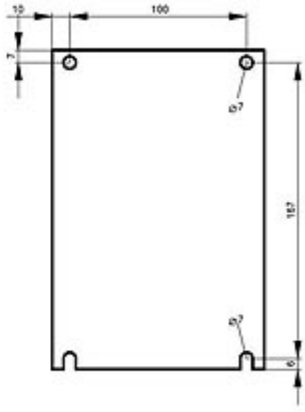
— at standard circuit at 50 °C rated value	hp	100
● at 575/600 V		
— at standard circuit at 50 °C rated value	hp	150
contact rating of auxiliary contacts according to UL		B300 / R300

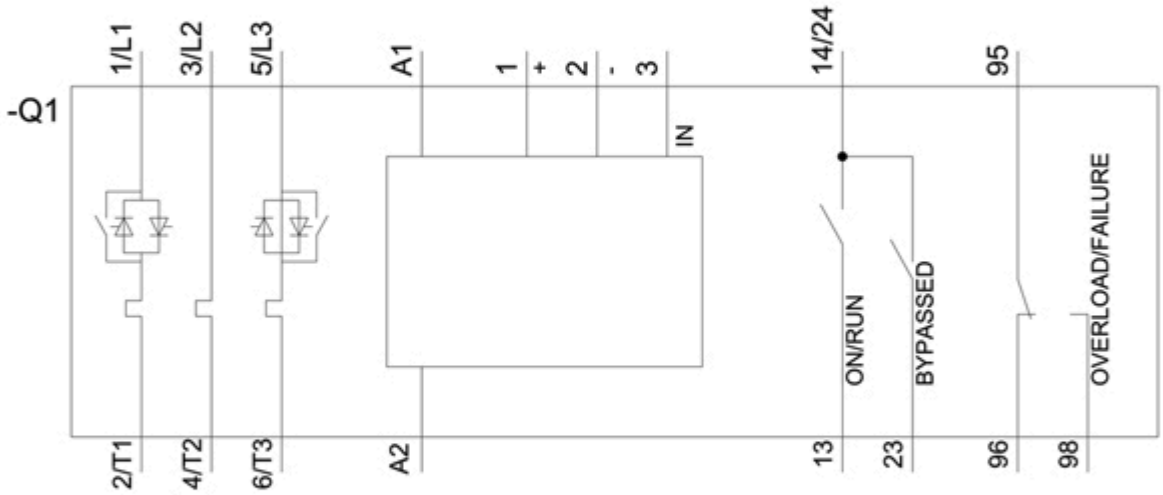
Further information

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=3RW4056-6BB35
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4056-6BB35
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RW4056-6BB35
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4056-6BB35&lang=en









last modified: 12/15/2020