SIEMENS

Data sheet 3RW4046-2TB05



SIRIUS soft starter S3 80 A, 55 kW/500 V, 40 $^{\circ}\text{C}$ 400-600 V AC, 24 V AC/DC spring-type terminals Thermistor motor protection

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 		Yes		
 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 	Α	80		
 at 50 °C rated value 	Α	73		
at 60 °C rated value	Α	66		
yielded mechanical performance for 3-phase motors				
• at 400 V				
 — at standard circuit at 40 °C rated value 	W	45 000		
● at 500 V				
— at standard circuit at 40 °C rated value	W	55 000		
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		

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adjustable motor current for motor overload protection minimum rated value	A	43
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	12
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 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	24
at 60 Hz rated value	V	24
relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-20
relative positive tolerance of the control supply voltage at AC at 50 Hz	%	20
relative negative tolerance of the control supply voltage at AC at 60 Hz	%	-20
relative positive tolerance of the control supply voltage at AC at 60 Hz	%	20
control supply voltage 1 at DC rated value	V	24
relative negative tolerance of the control supply voltage at DC	%	-20
relative positive tolerance of the control supply voltage at DC	%	20
display version for fault signal		red
Mechanical data		
size of engine control device		S3
width	mm	70
height	mm	170
depth	mm	190
fastening method		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
required spacing with side-by-side mounting		
• upwards	mm	60
• at the side	mm	30
downwards	mm	40
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		
for main current circuit		screw-type terminals
for auxiliary and control circuit		spring-loaded 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		
• solid		2x (2.5 16 mm²)
finely stranded with core end processingstranded		2.5 35 mm ² 4 70 mm ²
type of connectable conductor cross-sections for main contacts for box terminal using the back		

clamping point		
• solid		2x (2.5 16 mm²)
 finely stranded with core end processing 		2.5 50 mm²
stranded		10 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		
• solid		2x (2.5 16 mm²)
 finely stranded with core end processing 		2x (2.5 35 mm²)
• stranded		2x (10 50 mm²)
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal		
 using the back clamping point 		2x (10 1/0)
 using the front clamping point 		2x (10 1/0)
using both clamping points		10 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts		
finely stranded		2 x (10 50 mm²)
• stranded		2x (10 70 mm²)
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 2.5 mm²)
finely stranded with core end processing		2x (0.25 1.5 mm²)
type of connectable conductor cross-sections at AWG cables		
for main contacts		2x (7 1/0)
for auxiliary contacts		2x (24 14)
mbient 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
		IP20
protection class IP on the front acc. to IEC 60529		IF20

General Product Approval

EMC

For use in hazardous locations













Declaration of Test Certificates Marine / Shipping Conformity

Miscellaneous

Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>





Railway other

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	50		
● at 575/600 V				
 at standard circuit at 50 °C rated value 	hp	60		
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=3RW4046-2TB05

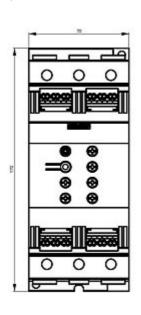
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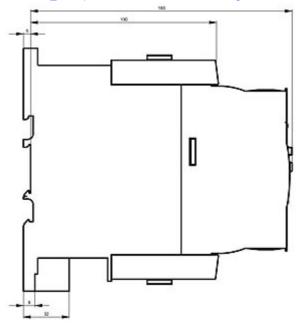
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4046-2TB05

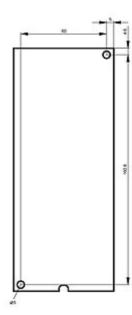
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

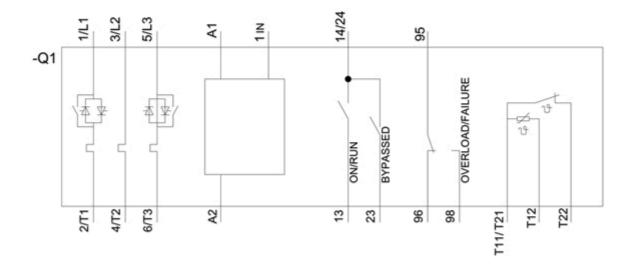
https://support.industry.siemens.com/cs/ww/en/ps/3RW4046-2TB05

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RW4046-2TB05&lang=en









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