## **SIEMENS**

Data sheet 3RW4024-1TB04



SIRIUS soft starter S0 12.5 A, 5.5 kW/400 V, 40  $^{\circ}\text{C}$  200-480 V AC, 24 V AC/DC Screw terminals Thermistor motor protection

General technical data		
product brand name		SIRIUS
product designation		Soft starter
product feature		
<ul> <li>integrated bypass contact system</li> </ul>		Yes
• thyristors		Yes
product function		
<ul> <li>intrinsic device protection</li> </ul>		Yes
<ul> <li>motor overload protection</li> </ul>		Yes
<ul> <li>evaluation of thermistor motor protection</li> </ul>		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
blocking voltage of the thyristor maximum	V	1 600
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		
operational current		
<ul> <li>at 40 °C rated value</li> </ul>	Α	12.5
<ul> <li>at 50 °C rated value</li> </ul>	Α	11
at 60 °C rated value	Α	10
yielded mechanical performance for 3-phase motors		
• at 230 V		
<ul> <li>— at standard circuit at 40 °C rated value</li> </ul>	kW	3
• at 400 V		
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	kW	5.5
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	3
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 standard circuit	%	10
minimum load [%]	%	20

adjustable motor current for motor overload protection	А	5	
minimum rated value  continuous operating current [% of le] at 40 °C	%	115	
power loss [W] at operational current at 40 °C during	W	2	
operation typical	**	-	
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	%	-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 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		S0	
width	mm	45	
height	mm	125	
depth	mm	155	
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	15	
<ul><li>downwards</li></ul>	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		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			
• solid		2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>		2x (1 2.5 mm²), 2x (2.5 6 mm²)	
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal			
using the front clamping point		1x 8, 2x (16 10)	
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 for AWG			
cables			

• for auxiliary contacts		2x (20 14)		
for auxiliary contacts     for auxiliary contacts finely stranded with core end	2x (20 14) 2x (20 16)			
processing	Δλ (ΔU 10)			
Ambient conditions				
installation altitude at height above sea level	m	5 000		
environmental category				
<ul> <li>during transport according to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)		
<ul> <li>during storage according to IEC 60721</li> </ul>		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4		
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				
<ul> <li>during operation</li> </ul>	°C	-25 +60		
during storage	°C	-40 +80		
derating temperature	°C	40		
protection class IP on the front according to IEC 60529		IP20		
touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front		
Environmental footprint				
Global Warming Potential [CO2 eq] total	kg	121		
Global Warming Potential [CO2 eq] during manufacturing	kg	4.24		
global warming potential [CO2 eq] during sales	kg	0.207		
Global Warming Potential [CO2 eq] during operation	kg	117		
Global Warming Potential [CO2 eq] after end of life	kg	-0.229		
UL/CSA ratings				
yielded mechanical performance [hp] for 3-phase AC motor				
• at 220/230 V				
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	3		
• at 460/480 V				
— at standard circuit at 50 °C rated value	hp	7.5		
contact rating of auxiliary contacts according to UL		B300 / R300		
Approvals Certificates				
General Product Approval		EMV		

**@** 

Confirmation



EAC



<u>KC</u>

For use in hazardous locations

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping

other

Railway

**Environment** 



Confirmation

Confirmation



Environmental Confirmations

## Further information

Simulation Tool for Soft Starters (STS)

https://support.industry.siemens.com/cs/ww/en/view/101494917

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

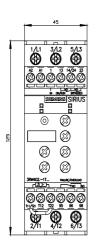
Industry Mall (Online ordering system)

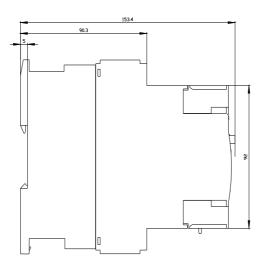
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4024-1TB04

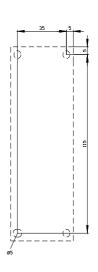
Cax online generator

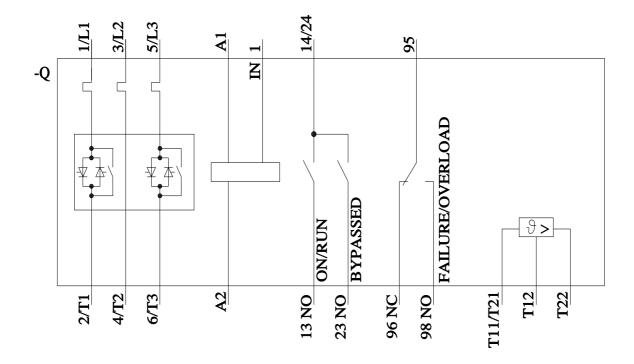
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-1TB04

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4024-1TB04&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4024-1TB04&lang=en</a>









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