## **SIEMENS**

Data sheet 3RW4036-1TB04



SIRIUS soft starter S2 45 A, 22 kW/400 V, 40  $^{\circ}\text{C}$  200-480 V AC, 24 V AC/DC Screw terminals Thermistor motor protection

Figure similar

General technical data				
product brand name		SIRIUS		
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		
<ul> <li>external reset</li> </ul>		Yes		
<ul> <li>adjustable current limitation</li> </ul>		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				
<ul> <li>at 40 °C rated value</li> </ul>	Α	45		
<ul> <li>at 50 °C rated value</li> </ul>	Α	42		
at 60 °C rated value	Α	39		
yielded mechanical performance for 3-phase motors				
• at 230 V				
<ul> <li>at standard circuit at 40 °C rated value</li> </ul>	W	11 000		
• at 400 V				
— at standard circuit at 40 °C rated value	W	22 000		
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	10		
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 minimum rated value	А	23
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	6
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	_	S2
width	mm	55
height	mm	160
depth	mm	170
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		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 (1.5 16 mm²)
<ul> <li>solid</li> <li>finely stranded with core end processing</li> </ul>		2x (1.5 16 mm²) 0.75 25 mm²

installation altitude at height above sea level  environmental category  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during operation acc. to IEC 60721  ambient temperature  • during operation  • during storage  • during storage  • during operation  c C -25 +60  • during temperature  • luring	• stranded		0.75 35 mm²
• finely stranded with core end processing     • stranded type of connectable conductor cross-sections for main contacts for box terminal using both clamping points     • solid     • finely stranded with core end processing     • stranded     vising the pack clamping point     • using the back clamping point     • using the back clamping point     • using both clamping point     • using the front clamping point     • using both clamping point     • solid     • finely stranded with core end processing     type of connectable conductor cross-sections for auxiliary contacts     • solid     • for auxiliary contacts     • for auxiliary contacts     • for auxiliary contacts     • for auxiliary contacts finely stranded with core end processing  unbient conditions  Installation altitude at height above sea level     • during storage acc. to IEC 60721     • during storage acc. to IEC 60721     • during operation acc. to IEC 60721     • during operation acc. to IEC 60721     • during operation acc. during operation     • during storage     • derating temperature     • during storage     • for auxiliary contacts     • for auxiliary contacts     • for auxiliary contacts finely stranded with core end processing     • for auxiliary contacts finely stranded with core end processing     • for auxili	main contacts for box terminal using the back		
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points	• solid		2x (1.5 16 mm²)
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points  • solid • finely stranded • stranded • stranded • stranded • using the back clamping point • using the front clamping point • using the front clamping point • using the front clamping point • using both clamping point • using both clamping point • using doth clamping point • using the front clamping point • using both clamping points • type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts • for auxiliary con	<ul> <li>finely stranded with core end processing</li> </ul>		1.5 25 mm²
main contacts for box terminal using both clamping points  solid finely stranded with core end processing stranded type of connectable conductor cross-sections at AWG cables for main contacts for box terminal using the back clamping point singly both clamping point susing the front clamping point susing both clamping point susing both clamping point singly connectable conductor cross-sections for auxiliary contacts of rouxiliary con	<ul><li>stranded</li></ul>		1.5 35 mm²
• finely stranded with core end processing     • stranded  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 points     • using both clamping points     • 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 auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts     • for one cable conductor cross-sections at AWG cables      • for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections for auxiliary contacts      • for one cable conductor cross-sections	main contacts for box terminal using both clamping		
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 using the front clamping points using the front clamping points using the front clamping points using both clamping points 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  of or auxiliary contacts of or auxiliary contacts  for auxiliary contacts finely stranded with core end processing  whiblent conditions  installation altitude at height above sea level of uring transport acc. to IEC 60721 during storage acc. to IEC 60721 during operation acc. to IEC 60721 during operation during operation during storage  curve the conditions  installation altitude at devices, 1M4  and being operation during operation curve the conditions  installation altitude at height above sea level of uring operation curve the conditions  installation altitude at height above sea level of uring operation acc. to IEC 60721  alterative the conditions  installation altitude at height above sea level of uring operation acc. to IEC 60721  alterative the conditions  installation altitude at height above sea level of uring operation of condensation, 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  alterative the devices, 1M4  alt	• solid		2x (1.5 16 mm²)
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal  • using the back clamping point • using both clamping points • using both clamping points • solid • finely stranded with core end processing  • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for during transport acc. to IEC 60721 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721 • during storage • C • C • 40 • IPO0	<ul> <li>finely stranded with core end processing</li> </ul>		2x (1.5 16 mm²)
cables for main contacts for box terminal  using the back clamping point using the front clamping point using both clamping using both clamping using both clamping using both	• stranded		2x (1.5 25 mm²)
<ul> <li>using the front clamping point</li> <li>using both clamping points</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts finely stranded with core end processing</li> <li>a for auxiliary contacts finely stranded with core end processing</li> <li>whose strands of the finely stranded with core end processing</li> <li>a for auxiliary contacts finely stranded with core end processing</li> <li>a for auxiliary contacts finely stranded with core end processing</li> <li>b for auxiliary contacts finely stranded with core end processing</li> <li>a for auxiliary contacts finely stranded with core end processing</li> <li>b for auxiliary contacts finely stranded with core end processing</li> <li>c for auxiliary contacts finely stranded with core end processing</li> <li>b for auxiliary contacts</li> <li>a for auxiliary contacts</li> <l< td=""><td><b>31</b></td><td></td><td></td></l<></ul>	<b>31</b>		
• using both clamping points  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 auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts finely stranded with core end processing  **Mobient conditions**  installation altitude at height above sea level  environmental category  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during operation acc. to IEC 60721  **ambient temperature**  • during operation acc. to IEC 60721  **ambient temperature**  • during operation acc. to IEC 60721  **ambient temperature**  • during storage  • C -25 +60  • during storage  derating temperature  • C 40  **protection class IP**	<ul> <li>using the back clamping point</li> </ul>		16 2
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 auxiliary contacts  • for auxiliary contacts finely stranded with core end processing  **Mobient conditions**  Installation altitude at height above sea level  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during operation acc. to IEC 60721  **Mobient temperature**  • during operation  • during storage  • during storage  • during storage  • during storage  • C  -25 +60  • during temperature  • during temperature  • C  -40 +80   **Torner*  2x (20 14)  2x (20 14)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 16)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 16)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 16)  2x (20 14)  2x (20 16)  2	<ul> <li>using the front clamping point</li> </ul>		18 2
auxiliary contacts	<ul> <li>using both clamping points</li> </ul>		2x (16 2)
• finely stranded with core end processing  type of connectable conductor cross-sections at AWG cables  • 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 acc. to IEC 60721 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721  ambient temperature • during operation • during storage  derating temperature • during storage  derating temperature  or current for auxiliary contacts  2x (20 14)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20 14)  2x (20 16)  2x (20			
type of connectable conductor cross-sections at AWG cables  • 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 acc. to IEC 60721 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721 • during operation acc. to IEC 60721  ambient temperature • during operation • during storage • during storage  during storage  environmental category  • during operation • C  -25 +60 • during storage  derating temperature  ° C  40  protection class IP	• solid		2x (0.5 2.5 mm²)
e 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 acc. to IEC 60721 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721  ambient temperature • during operation • during storage • during storage  cut in	<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²)
for auxiliary contacts finely stranded with core end processing  Ambient conditions  Installation altitude at height above sea level  environmental category      during transport acc. to IEC 60721      during storage acc. to IEC 60721      during operation acc. to IEC 60721      during operation acc. to IEC 60721  ambient temperature      during operation     during storage      during storage      during transport acc. to IEC 60721      during operation acc. to IEC 60721      during operation acc. to IEC 60721      during operation     c -25 +60      during storage      c -40 +80  derating temperature      protection class IP      IP00	<b>31</b>		
Installation altitude at height above sea level Installation altitude at height	<ul> <li>for auxiliary contacts</li> </ul>		2x (20 14)
installation altitude at height above sea level  environmental category  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during operation acc. to IEC 60721  ambient temperature  • during operation  • during storage  • during storage  • during operation  c C -25 +60  • during temperature  • luring			2x (20 16)
environmental category  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during operation acc. to IEC 60721  ambient temperature  • during operation  • during storage  • during operation  C -25 +60  • during storage  • during torage  • recomplete to the device of t	Ambient conditions		
<ul> <li>during transport acc. to IEC 60721</li> <li>during storage acc. to IEC 60721</li> <li>during operation acc. to IEC 60721</li> <li>during operation acc. to IEC 60721</li> <li>ambient temperature</li> <li>during operation</li> <li>during storage</li> <li>during storage</li> <li>c</li> <li>c</li> <li>c</li> <li>c</li> <li>derating temperature</li> <li>protection class IP</li> </ul> <ul> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> </ul>	installation altitude at height above sea level	m	5 000
<ul> <li>during storage acc. to IEC 60721</li> <li>during operation acc. to IEC 60721</li> <li>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>ambient temperature</li> <li>during operation</li> <li>during storage</li> <li>C -25 +60</li> <li>during temperature</li> <li>C -40 +80</li> <li>derating temperature</li> <li>Protection class IP</li> </ul>	environmental category		
ambient temperature	<ul> <li>during transport acc. to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
mist), 3S2 (sand must not get into the devices), 3M6  ambient temperature	<ul> <li>during storage acc. to IEC 60721</li> </ul>		
● during operation         °C         -25 +60           ● during storage         °C         -40 +80           derating temperature         °C         40           protection class IP         IP00	<ul> <li>during operation acc. to IEC 60721</li> </ul>		
<ul> <li>during storage</li> <li>°C -40 +80</li> <li>derating temperature</li> <li>°C 40</li> <li>protection class IP</li> <li>IP00</li> </ul>	ambient temperature		
derating temperature  °C 40  protection class IP  IP00	<ul> <li>during operation</li> </ul>	°C	-25 +60
protection class IP IP00	during storage	°C	-40 +80
	derating temperature	°C	40
cartificated approvals	protection class IP		IP00
dertificates/ approvais	Certificates/ approvals		

**General Product Approval** 















For use in hazardous locations

Declaration of Conformity

**Test Certificates** 

Marine / Shipping



**Miscellaneous** 

Special Test Certificate Type Test
Certificates/Test
Report





Marine / Shipping

other

Railway



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	15		
• at 460/480 V				
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	30		
contact rating of auxiliary contacts according to UL		B300 / R300		
- 0 - 0				

## 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=3RW4036-1TB04

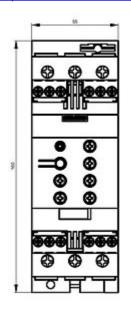
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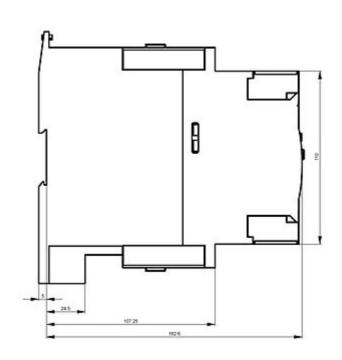
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4036-1TB04

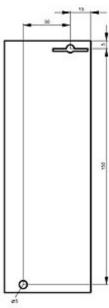
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

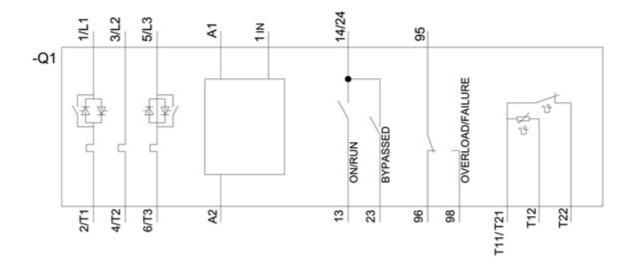
https://support.industry.siemens.com/cs/ww/en/ps/3RW4036-1TB04

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=3RW4036-1TB04&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4036-1TB04&lang=en</a>









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