

## Data sheet

## 3RW5526-3HA14



SIRIUS soft starter 200-480 V 77 A, 110-250 V AC spring-type terminals

<b>product brand name</b>	SIRIUS
<b>product category</b>	Hybrid switching devices
<b>product designation</b>	Soft starter
<b>product type designation</b>	3RW55
<b>manufacturer's article number</b>	<ul style="list-style-type: none"> <li>• of high feature HMI module usable <a href="#">3RW5980-0HF00</a></li> <li>• of communication module PROFINET standard usable <a href="#">3RW5980-0CS00</a></li> <li>• of communication module PROFINET high-feature usable <a href="#">3RW5950-0CH00</a></li> <li>• of communication module PROFIBUS usable <a href="#">3RW5980-0CP00</a></li> <li>• of communication module Modbus TCP usable <a href="#">3RW5980-0CT00</a></li> <li>• of communication module Modbus RTU usable <a href="#">3RW5980-0CR00</a></li> <li>• of communication module Ethernet/IP <a href="#">3RW5980-0CE00</a></li> <li>• of circuit breaker usable at 400 V <a href="#">3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V <a href="#">3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 20 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 400 V at inside-delta circuit <a href="#">3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V at inside-delta circuit <a href="#">3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of the gG fuse usable up to 690 V <a href="#">3NA3132-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of the gG fuse usable at inside-delta circuit up to 500 V <a href="#">3NA3132-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of full range R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE1224-0; Type of coordination 2, Iq = 65 kA</a></li> <li>• of back-up R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE3227; Type of coordination 2, Iq = 65 kA</a></li> </ul>

General technical data	
<b>starting voltage [%]</b>	20 ... 100 %
<b>stopping voltage [%]</b>	50 %; non-adjustable
<b>start-up ramp time of soft starter</b>	0 ... 360 s
<b>ramp-down time of soft starter</b>	0 ... 360 s
<b>start torque [%]</b>	10 ... 100 %
<b>stopping torque [%]</b>	10 ... 100 %
<b>torque limitation [%]</b>	20 ... 200 %
<b>current limiting value [%] adjustable</b>	125 ... 800 %
<b>breakaway voltage [%] adjustable</b>	40 ... 100 %
<b>breakaway time adjustable</b>	0 ... 2 s
<b>number of parameter sets</b>	3
<b>accuracy class according to IEC 61557-12</b>	5 %
<b>certificate of suitability</b>	





- removable terminal for control circuit
- voltage ramp
- torque control
- combined braking
- analog output
- programmable control inputs/outputs
- condition monitoring
- automatic parameterisation
- application wizards
- alternative run-down
- emergency operation mode
- reversing operation
- soft starting at heavy starting conditions

Yes  
 Yes  
 Yes  
 Yes  
 Yes; 4 ... 20 mA (default) / 0 ... 10 V  
 Yes  
 Yes  
 Yes  
 Yes  
 Yes  
 Yes  
 Yes  
 Yes  
 Yes

### Power Electronics

<b>operational current</b>	
• at 40 °C rated value	77 A
• at 40 °C rated value minimum	16 A
• at 50 °C rated value	68 A
• at 60 °C rated value	62 A
<b>operational current at inside-delta circuit</b>	
• at 40 °C rated value	133 A
• at 50 °C rated value	118 A
• at 60 °C rated value	107 A
<b>operating voltage</b>	
• rated value	200 ... 480 V
• at inside-delta circuit rated value	200 ... 480 V
<b>relative negative tolerance of the operating voltage</b>	-15 %
<b>relative positive tolerance of the operating voltage</b>	10 %
<b>relative negative tolerance of the operating voltage at inside-delta circuit</b>	-15 %
<b>relative positive tolerance of the operating voltage at inside-delta circuit</b>	10 %
<b>operating power for 3-phase motors</b>	
• at 230 V at 40 °C rated value	22 kW
• at 230 V at inside-delta circuit at 40 °C rated value	37 kW
• at 400 V at 40 °C rated value	37 kW
• at 400 V at inside-delta circuit at 40 °C rated value	75 kW
<b>Operating frequency 1 rated value</b>	50 Hz
<b>Operating frequency 2 rated value</b>	60 Hz
<b>relative negative tolerance of the operating frequency</b>	-10 %
<b>relative positive tolerance of the operating frequency</b>	10 %
<b>minimum load [%]</b>	10 %; Relative to set le
<b>power loss [W] for rated value of the current at AC</b>	
• at 40 °C after startup	23 W
• at 50 °C after startup	20 W
• at 60 °C after startup	19 W
<b>power loss [W] at AC at current limitation 350 %</b>	
• at 40 °C during startup	1 083 W
• at 50 °C during startup	921 W
• at 60 °C during startup	814 W
<b>type of the motor protection</b>	Electronic, tripping in the event of thermal overload of the motor
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage at AC</b>	
• at 50 Hz	110 ... 250 V
• at 60 Hz	110 ... 250 V
<b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>	-15 %
<b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>	10 %
<b>relative negative tolerance of the control supply</b>	-15 %



voltage at AC at 60 Hz	
relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
control supply voltage frequency	50 ... 60 Hz
relative negative tolerance of the control supply voltage frequency	-10 %
relative positive tolerance of the control supply voltage frequency	10 %
control supply current in standby mode rated value	100 mA
holding current in bypass operation rated value	180 mA
locked-rotor current at close of bypass contact maximum	0.8 A
inrush current peak at application of control supply voltage maximum	43 A
duration of inrush current peak at application of control supply voltage	1.6 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gG fuse (I <sub>cu</sub> =1 kA), 6 A quick-acting fuse (I <sub>cu</sub> =1 kA), C1 miniature circuit breaker (I <sub>cu</sub> = 600 A), C6 miniature circuit breaker (I <sub>cu</sub> = 300 A); Is not part of scope of supply

Inputs/ Outputs	
number of digital inputs	4
<ul style="list-style-type: none"> <li>parameterizable</li> </ul>	4
<ul style="list-style-type: none"> <li>number of digital outputs</li> </ul>	4
<ul style="list-style-type: none"> <li>number of digital outputs parameterizable</li> </ul>	3
<ul style="list-style-type: none"> <li>number of digital outputs not parameterizable</li> </ul>	1
digital output version	3 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	1
switching capacity current of the relay outputs	
<ul style="list-style-type: none"> <li>at AC-15 at 250 V rated value</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at DC-13 at 24 V rated value</li> </ul>	1 A

Installation/ mounting/ dimensions	
mounting position	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
fastening method	screw fixing
height	306 mm
width	185 mm
depth	203 mm
required spacing with side-by-side mounting	
<ul style="list-style-type: none"> <li>forwards</li> </ul>	10 mm
<ul style="list-style-type: none"> <li>backwards</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>upwards</li> </ul>	100 mm
<ul style="list-style-type: none"> <li>downwards</li> </ul>	75 mm
<ul style="list-style-type: none"> <li>at the side</li> </ul>	5 mm
weight without packaging	7.15 kg

Connections/ Terminals	
type of electrical connection	
<ul style="list-style-type: none"> <li>for main current circuit</li> </ul>	box terminal
<ul style="list-style-type: none"> <li>for control circuit</li> </ul>	spring-loaded terminals
width of connection bar maximum	25 mm
wire length for thermistor connection	
<ul style="list-style-type: none"> <li>with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> </ul>	50 m
<ul style="list-style-type: none"> <li>with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> </ul>	150 m
<ul style="list-style-type: none"> <li>with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>	250 m
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> <li>for main contacts for box terminal using the front clamping point solid</li> </ul>	1x (2.5 ... 16 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>for main contacts for box terminal using the front clamping point finely stranded with core end processing</li> </ul>	1x (2.5 ... 50 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>for main contacts for box terminal using the front clamping point stranded</li> </ul>	1x (10 ... 70 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>at AWG cables for main contacts for box terminal using the front clamping point</li> </ul>	1x (10 ... 2/0)



<ul style="list-style-type: none"> <li>• for main contacts for box terminal using the back clamping point solid</li> <li>• at AWG cables for main contacts for box terminal using the back clamping point</li> <li>• for main contacts for box terminal using both clamping points solid</li> <li>• for main contacts for box terminal using both clamping points finely stranded with core end processing</li> <li>• for main contacts for box terminal using both clamping points stranded</li> <li>• for main contacts for box terminal using the back clamping point finely stranded with core end processing</li> <li>• for main contacts for box terminal using the back clamping point stranded</li> </ul>	<p>1x (2.5 ... 16 mm<sup>2</sup>)</p> <p>1x (10 ... 2/0)</p> <p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (6 ... 16 mm<sup>2</sup>), 2x (10 ... 50 mm<sup>2</sup>)</p> <p>1x (2.5 ... 50 mm<sup>2</sup>)</p> <p>1x (10 ... 70 mm<sup>2</sup>)</p>
<p><b>type of connectable conductor cross-sections</b></p> <ul style="list-style-type: none"> <li>• for control circuit solid</li> <li>• for control circuit finely stranded with core end processing</li> <li>• at AWG cables for control circuit solid</li> <li>• at AWG cables for control circuit finely stranded with core end processing</li> </ul>	<p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (24 ... 16)</p> <p>2x (24 ... 16)</p>
<p><b>wire length</b></p> <ul style="list-style-type: none"> <li>• between soft starter and motor maximum</li> <li>• at the digital inputs at DC maximum</li> </ul>	<p>800 m</p> <p>1 000 m</p>
<p><b>tightening torque</b></p> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>	<p>4.5 ... 6 N·m</p> <p>0.8 ... 1.2 N·m</p>
<p><b>tightening torque [lbf·in]</b></p> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>	<p>40 ... 53 lbf·in</p> <p>7 ... 10.3 lbf·in</p>
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
<p><b>ambient temperature</b></p> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage and transport</li> </ul>	<p>-25 ... +60 °C; Please observe derating at temperatures of 40 °C or above</p> <p>-40 ... +80 °C</p>
<p><b>environmental category</b></p> <ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during transport according to IEC 60721</li> </ul>	<p>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p>
<b>EMC emitted interference</b>	acc. to IEC 60947-4-2: Class A, Class B on request
<b>Communication/ Protocol</b>	
<p><b>communication module is supported</b></p> <ul style="list-style-type: none"> <li>• PROFINET standard</li> <li>• PROFINET high-feature</li> <li>• EtherNet/IP</li> <li>• Modbus RTU</li> <li>• Modbus TCP</li> <li>• PROFIBUS</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>UL/CSA ratings</b>	
<p><b>manufacturer's article number</b></p> <ul style="list-style-type: none"> <li>• of circuit breaker <ul style="list-style-type: none"> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for High Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V at inside-delta circuit according to UL</li> </ul> </li> </ul>	<p>Siemens type: 3VA51, max. 125 A; I<sub>q</sub> = 10 kA</p> <p>Siemens type: 3VA51, max. 125 A; I<sub>q</sub> max = 65 kA</p> <p>Siemens type: 3VA51, max. 125 A; I<sub>q</sub> = 10 kA</p>



— usable for High Faults at 460/480 V at inside-delta circuit according to UL	Siemens type: 3VA51, max. 125 A; I <sub>q</sub> max = 65 kA		
— usable for Standard Faults at 575/600 V according to UL	Siemens type: 3VA51, max. 125 A; I <sub>q</sub> = 10 kA		
— usable for High Faults at 575/600 V at inside-delta circuit according to UL	Siemens type: 3VA51, max. 125 A; I <sub>q</sub> max = 65 kA		
— usable for Standard Faults at 575/600 V at inside-delta circuit according to UL	Siemens type: 3VA51, max. 125 A; I <sub>q</sub> = 10 kA		
<ul style="list-style-type: none"> <li>• of the fuse</li> </ul>			
— usable for Standard Faults up to 575/600 V according to UL	Type: Class RK5 / K5, max. 250 A; I <sub>q</sub> = 10 kA		
— usable for High Faults up to 575/600 V according to UL	Type: Class J / L, max. 250 A; I <sub>q</sub> = 100 kA		
— usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL	Type: Class RK5 / K5, max. 250 A; I <sub>q</sub> = 10 kA		
— usable for High Faults at inside-delta circuit up to 575/600 V according to UL	Type: Class J / L, max. 250 A; I <sub>q</sub> = 100 kA		
<b>operating power [hp] for 3-phase motors</b>			
• at 200/208 V at 50 °C rated value	20 hp		
• at 220/230 V at 50 °C rated value	25 hp		
• at 460/480 V at 50 °C rated value	50 hp		
• at 200/208 V at inside-delta circuit at 50 °C rated value	30 hp		
• at 220/230 V at inside-delta circuit at 50 °C rated value	40 hp		
• at 460/480 V at inside-delta circuit at 50 °C rated value	75 hp		
<b>contact rating of auxiliary contacts according to UL</b>	R300-B300		
<b>Safety related data</b>			
<b>protection class IP on the front according to IEC 60529</b>	IP00; IP20 with cover		
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front with cover		
<b>electromagnetic compatibility</b>	acc. to IEC 60947-4-2		
<b>ATEX</b>			
<b>certificate of suitability</b>			
• ATEX	Yes		
• IECEx	Yes		
• according to ATEX directive 2014/34/EU	BVS 18 ATEX F 003 X		
<b>type of protection according to ATEX directive 2014/34/EU</b>	II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], I (M2) [Ex db Mb]		
<b>hardware fault tolerance according to IEC 61508 relating to ATEX</b>	0		
<b>PFDAvg with low demand rate according to IEC 61508 relating to ATEX</b>	0.008		
<b>PFHD with high demand rate according to EN 62061 relating to ATEX</b>	5E-7 1/h		
<b>Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX</b>	SIL1		
<b>T1 value for proof test interval or service life according to IEC 61508 relating to ATEX</b>	3 s		
<b>Certificates/ approvals</b>			
<b>General Product Approval</b>	<b>EMC</b>		
<a href="#">Confirmation</a>			
<b>For use in hazardous locations</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Marine / Shipping</b>



Type Test Certificates/Test Reports



Marine / Shipping

other



[Confirmation](#)

Further information

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=3RW5526-3HA14>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5526-3HA14>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5526-3HA14>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5526-3HA14&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5526-3HA14&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

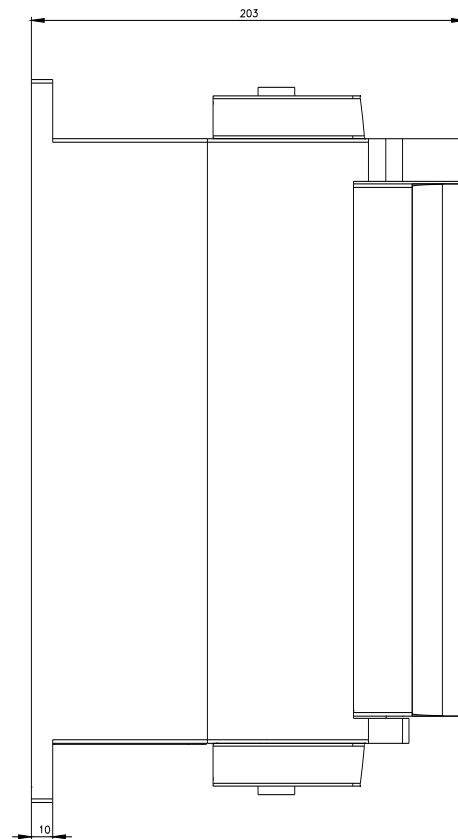
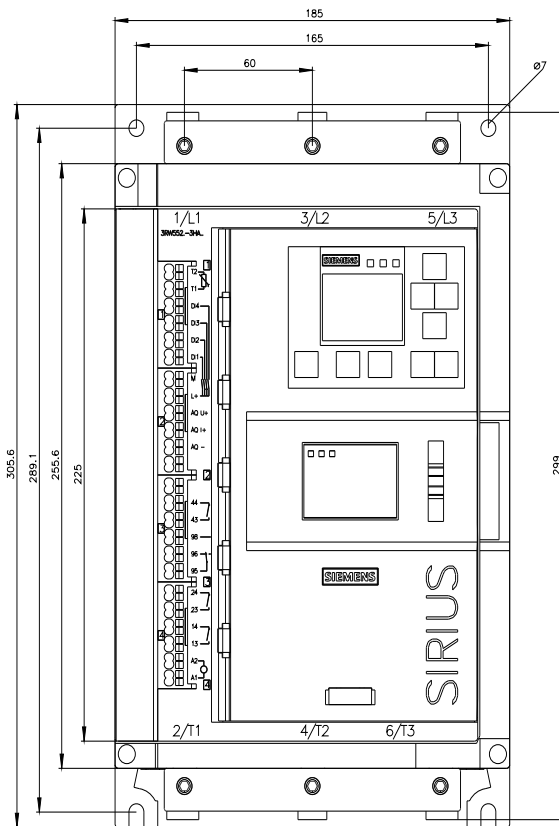
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5526-3HA14/char>

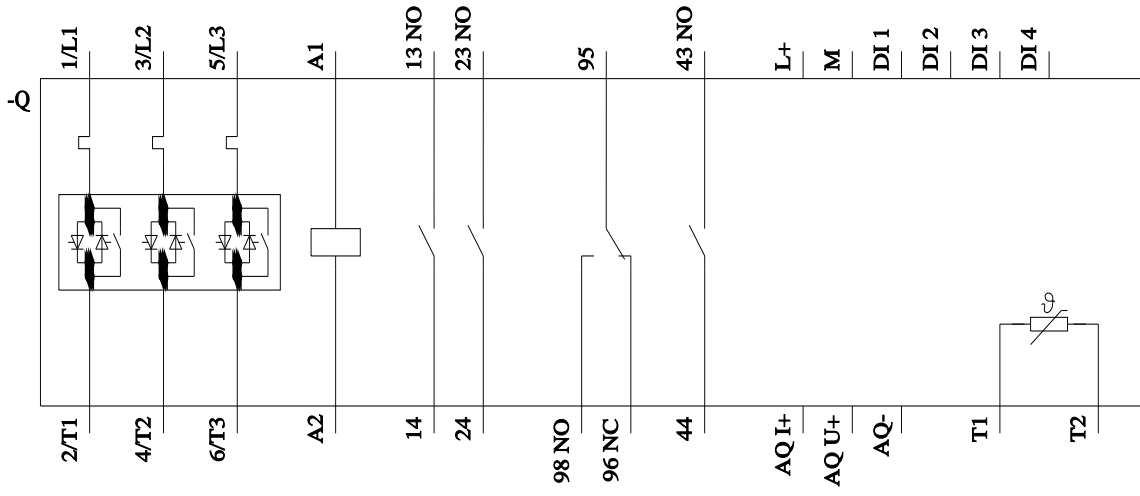
Characteristic: Installation altitude

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5526-3HA14&objecttype=14&gridview=view1>

Simulation Tool for Soft Starters (STS)

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





last modified:

5/13/2022



