# SIEMENS



### Data sheet

#### 3RW5525-3HA14



SIRIUS soft starter 200-480 V 63 A, 110-250 V AC spring-type terminals

product brand name	SIRIUS
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW55
manufacturer's article number	
<ul> <li>of high feature HMI module usable</li> </ul>	<u>3RW5980-0HF00</u>
<ul> <li>of communication module PROFINET standard usable</li> </ul>	<u>3RW5980-0CS00</u>
<ul> <li>of communication module PROFINET high-feature usable</li> </ul>	<u>3RW5950-0CH00</u>
<ul> <li>of communication module PROFIBUS usable</li> </ul>	<u>3RW5980-0CP00</u>
<ul> <li>of communication module Modbus TCP usable</li> </ul>	<u>3RW5980-0CT00</u>
<ul> <li>of communication module Modbus RTU usable</li> </ul>	<u>3RW5980-0CR00</u>
<ul> <li>of communication module Ethernet/IP</li> </ul>	<u>3RW5980-0CE00</u>
<ul> <li>of circuit breaker usable at 400 V</li> </ul>	3VA2163-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V</li> </ul>	3VA2163-7MN32-0AA0: Type of coordination 1, Iq = 20 kA, CLASS 10
<ul> <li>of circuit breaker usable at 400 V at inside-delta circuit</li> </ul>	3VA2110-7MN32-0AA0: Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V at inside-delta circuit</li> </ul>	3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	3NA3830-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of the gG fuse usable at inside-delta circuit up to 500 V</li> </ul>	<u>3NA3830-6; Type of coordination 1, Iq = 65 kA</u>
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	<u>3NE1022-0; Type of coordination 2, Iq = 65 kA</u>
<ul> <li>of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul>	<u>3NE3227: Type of coordination 2, Iq = 65 kA</u>
General technical data	
starting voltage [%]	20 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 360 s
ramp-down time of soft starter	0 360 s
start torque [%]	10 100 %
stopping torque [%]	10 100 %
torque limitation [%]	20 200 %
current limiting value [%] adjustable	125 800 %
breakaway voltage [%] adjustable	40 100 %
breakaway time adjustable	0 2 s
number of parameter sets	3
accuracy class according to IEC 61557-12	5 %
certificate of suitability	

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• CE marking	Yes
UL approval	Yes Yes Yes
CSA approval	
product component	
HMI-High Feature	Yes
0	Yes
is supported HMI-High Feature	Yes
product feature integrated bypass contact system	3
number of controlled phases	
trip class	CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2
current unbalance limiting value [%]	10 60 %
ground-fault monitoring limiting value [%]	10 95 %
buffering time in the event of power failure	400
• for main current circuit	100 ms
for control circuit	100 ms
idle time adjustable	0 255 s
insulation voltage rated value	480 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 400 V
service factor	1.15
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between main and auxiliary circuit</li> </ul>	480 V; does not apply for thermistor connection
shock resistance	15 g / 11 ms, from 6 g / 11 ms with potential contact lifting
vibration resistance	15 mm up to 6 Hz; 2 g up to 500 Hz
recovery time after overload trip adjustable	60 1 800 s
utilization category according to IEC 60947-4-2	AC 53a
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	02/15/2018
product function	
<ul> <li>ramp-up (soft starting)</li> </ul>	Yes
<ul> <li>ramp-down (soft stop)</li> </ul>	Yes
<ul> <li>breakaway pulse</li> </ul>	Yes
<ul> <li>adjustable current limitation</li> </ul>	Yes
<ul> <li>creep speed in both directions of rotation</li> </ul>	Yes
pump ramp down	Yes
DC braking	Yes
<ul> <li>motor heating</li> </ul>	Yes
<ul> <li>slave pointer function</li> </ul>	Yes
trace function	Yes
<ul> <li>intrinsic device protection</li> </ul>	Yes
<ul> <li>motor overload protection</li> </ul>	Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.
<ul> <li>evaluation of thermistor motor protection</li> </ul>	Yes; Type A PTC or Klixon / Thermoclick
• inside-delta circuit	Yes
auto-RESET	Yes
manual RESET	Yes
remote reset	Yes
<ul> <li>communication function</li> </ul>	Yes
<ul> <li>operating measured value display</li> </ul>	Yes
event list	Yes
error logbook	Yes
via software parameterizable	Yes
• via software configurable	Yes
screw terminal	No
<ul> <li>spring-loaded terminal</li> </ul>	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules
firmware update	Yes

<ul> <li>removable terminal for control circuit</li> </ul>	Yes
voltage ramp	Yes Yes (D) dientudong
torque control	Yes
<ul> <li>combined braking</li> </ul>	Yes
<ul> <li>analog output</li> </ul>	Yes; 4 20 mA (default) / 0 10 V
<ul> <li>programmable control inputs/outputs</li> </ul>	Yes
<ul> <li>condition monitoring</li> </ul>	Yes
<ul> <li>automatic parameterisation</li> </ul>	Yes
<ul> <li>application wizards</li> </ul>	Yes
alternative run-down	Yes
emergency operation mode	Yes
reversing operation	Yes
soft starting at heavy starting conditions  Power Electronics	Yes
operational current	
at 40 °C rated value	63 A
at 40 °C rated value     at 40 °C rated value minimum	13 A
• at 50 °C rated value	55.5 A
at 60 °C rated value	50.5 A
operational current at inside-delta circuit	
at 40 °C rated value	109 A
• at 50 °C rated value	96 A
• at 60 °C rated value	87.5 A
operating voltage	
rated value	200 480 V
<ul> <li>at inside-delta circuit rated value</li> </ul>	200 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at inside-delta circuit	-15 %
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
• at 230 V at 40 °C rated value	18.5 kW
<ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul>	30 kW
• at 400 V at 40 °C rated value	30 kW
at 400 V at inside-delta circuit at 40 °C rated value	55 kW
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive televance of the energing frequency	10.9/
relative positive tolerance of the operating frequency	10 %
minimum load [%]	10 % 10 %; Relative to set le
minimum load [%] power loss [W] for rated value of the current at AC	10 %; Relative to set le
minimum load [%] power loss [W] for rated value of the current at AC • at 40 °C after startup	10 %; Relative to set le 19 W
minimum load [%] power loss [W] for rated value of the current at AC	10 %; Relative to set le
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup	10 %; Relative to set le 19 W 17 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup	10 %; Relative to set le 19 W 17 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         power loss [W] at AC at current limitation 350 %	10 %; Relative to set le 19 W 17 W 15 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 60 °C after startup         • at 40 °C during startup	10 %; Relative to set le 19 W 17 W 15 W 1 056 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         power loss [W] at AC at current limitation 350 %         • at 40 °C during startup         • at 50 °C during startup	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         power loss [W] at AC at current limitation 350 %         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         • at 60 °C during startup	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         • at 60 °C during startup         • at 60 °C during startup	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         power loss [W] at AC at current limitation 350 %         • at 40 °C during startup         • at 60 °C during startup <t< th=""><th>10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W Electronic, tripping in the event of thermal overload of the motor</th></t<>	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W Electronic, tripping in the event of thermal overload of the motor
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         • at 50 Hz	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         • at 50 Hz         • at 50 Hz         • at 60 Hz	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         type of the motor protection         Control circuit/ Control         type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz         • at 60 Hz         relative negative tolerance of the control supply voltage at AC at 50 Hz	10 %; Relative to set le  19 W  17 W  15 W  1 056 W  732 W  647 W  Electronic, tripping in the event of thermal overload of the motor  AC  110 250 V  110 250 V  -15 %
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 40 °C during startup         • at 60 °C during startup         type of the motor protection         Control circuit/ Control         type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz         • at 60 Hz         relative negative tolerance of the control supply	10 %; Relative to set le 19 W 17 W 15 W 1 056 W 732 W 647 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
minimum load [%]         power loss [W] for rated value of the current at AC         • at 40 °C after startup         • at 50 °C after startup         • at 60 °C after startup         • at 40 °C during startup         • at 40 °C during startup         • at 50 °C during startup         • at 60 °C during startup         type of the motor protection         Control circuit/ Control         type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz         • at 60 Hz         relative negative tolerance of the control supply voltage at AC at 50 Hz         relative positive tolerance of the control supply	10 %; Relative to set le  19 W  17 W  15 W  1 056 W  732 W  647 W  Electronic, tripping in the event of thermal overload of the motor  AC  110 250 V  110 250 V  -15 %

voltage at AC at 60 Hz	diantudana
relative positive tolerance of the control supply	10 % (c) dientudong
voltage at AC at 60 Hz	50 60 Hz
control supply voltage frequency relative negative tolerance of the control supply	-10 %
voltage frequency	
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 (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply
Inputs/ Outputs	
number of digital inputs	4
parameterizable	4
<ul> <li>number of digital outputs</li> </ul>	4
<ul> <li>number of digital outputs parameterizable</li> </ul>	3
<ul> <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> <li>at AC-15 at 250 V rated value</li> </ul>	3 A
<ul> <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
uepui	200 mm
required spacing with side-by-side mounting	200 mm
•	10 mm
required spacing with side-by-side mounting	
required spacing with side-by-side mounting • forwards	10 mm
required spacing with side-by-side mounting • forwards • backwards	10 mm 0 mm
required spacing with side-by-side mounting • forwards • backwards • upwards	10 mm 0 mm 100 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards	10 mm 0 mm 100 mm 75 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side	10 mm 0 mm 100 mm 75 mm 5 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging	10 mm 0 mm 100 mm 75 mm 5 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging Connections/ Terminals	10 mm 0 mm 100 mm 75 mm 5 mm
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> </ul> </li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> <li>width of connection bar maximum</li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> <li>width of connection bar maximum <ul> <li>wire length for thermistor connection</li> </ul> </li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>weight without packaging <ul> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> <li>width of connection bar maximum <ul> <li>wire length for thermistor connection</li> <li>with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> </ul> </li> </ul></li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm 50 m
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>Weight without packaging <ul> <li>Connections/ Terminals</li> </ul> </li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> <li>width of connection bar maximum <ul> <li>wire length for thermistor connection</li> <li>with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> <li>with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> <li>type of connectable conductor cross-sections</li> </ul> </li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm 50 m 150 m 250 m
required spacing with side-by-side mounting <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> <li>Weight without packaging <ul> <li>Connections/ Terminals</li> </ul> </li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> </ul> </li> <li>width of connection bar maximum <ul> <li>wire length for thermistor connection</li> <li>with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> <li>with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul> </li>	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm 50 m 150 m
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum wire length for thermistor connection • with conductor cross-section = 0.5 mm <sup>2</sup> maximum • with conductor cross-section = 1.5 mm <sup>2</sup> maximum • with conductor cross-section = 2.5 mm <sup>2</sup> maximum • with conductor cross-section = 2.5 mm <sup>2</sup> maximum • with conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm 50 m 150 m 250 m 1x (2.5 16 mm <sup>2</sup> ) 1x (2.5 50 mm <sup>2</sup> )
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum wire length for thermistor connection • with conductor cross-section = 0.5 mm <sup>2</sup> maximum • with conductor cross-section = 1.5 mm <sup>2</sup> maximum • with conductor cross-section = 2.5 mm <sup>2</sup> maximum • with conductor cross-section = 2.5 mm <sup>2</sup> maximum • with conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end	10 mm 0 mm 100 mm 75 mm 5 mm 5.9 kg box terminal spring-loaded terminals 25 mm 50 m 150 m 250 m 1x (2.5 16 mm <sup>2</sup> )

<ul> <li>for main contacts for box terminal using the back clamping point solid</li> </ul>	1x (2.5 16 mm <sup>2</sup> ) 1x (10 2/0)
<ul> <li>at AWG cables for main contacts for box terminal using the back clamping point</li> </ul>	1x (10 2/0)
<ul> <li>for main contacts for box terminal using both clamping points solid</li> </ul>	2x (2.5 16 mm²)
<ul> <li>for main contacts for box terminal using both clamping points finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²)
<ul> <li>for main contacts for box terminal using both clamping points stranded</li> </ul>	2x (6 16 mm²), 2x (10 50 mm²)
<ul> <li>for main contacts for box terminal using the back clamping point finely stranded with core end processing</li> </ul>	1x (2.5 50 mm²)
<ul> <li>for main contacts for box terminal using the back clamping point stranded</li> </ul>	1x (10 70 mm²)
type of connectable conductor cross-sections	
<ul> <li>for control circuit solid</li> </ul>	2x (0.25 1.5 mm²)
<ul> <li>for control circuit finely stranded with core end processing</li> </ul>	2x (0.25 1.5 mm²)
<ul> <li>at AWG cables for control circuit solid</li> </ul>	2x (24 16)
<ul> <li>at AWG cables for control circuit finely stranded with</li> </ul>	2x (24 16)
core end processing	
wire length	
<ul> <li>between soft starter and motor maximum</li> </ul>	800 m
<ul> <li>at the digital inputs at DC maximum</li> </ul>	1 000 m
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	4.5 6 N·m
<ul> <li>for auxiliary and control contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m
tightening torque [lbf·in]	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	40 53 lbf in
<ul> <li>for auxiliary and control contacts with screw-type terminals</li> </ul>	7 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum	5 UUU m. Derating as of 1000 m. see catalog
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	
	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
<ul><li>ambient temperature</li><li>during operation</li></ul>	-25 +60 °C; Please observe derating at temperatures of 40 °C or
ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
<ul><li>ambient temperature</li><li>during operation</li><li>during storage and transport</li></ul>	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
ambient temperature <ul> <li>during operation</li> <li>during storage and transport</li> </ul> <li>environmental category</li>	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> </ul>
<ul> <li>ambient temperature <ul> <li>during operation</li> <li>during storage and transport</li> </ul> </li> <li>environmental category <ul> <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> </li> </ul>	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> </ul>
<ul> <li>ambient temperature <ul> <li>during operation</li> <li>during storage and transport</li> </ul> </li> <li>environmental category <ul> <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> </li> <li>EMC emitted interference</li> </ul>	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> </ul>
<ul> <li>ambient temperature <ul> <li>during operation</li> <li>during storage and transport</li> </ul> </li> <li>environmental category <ul> <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> </li> </ul>	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> </ul>
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ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         • Communication/ Protocol	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> </ul>
ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         EMC emitted interference         Communication/ Protocol         communication module is supported	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul>
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ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         EMC emitted interference         Communication/ Protocol         communication module is supported         • PROFINET standard         • PROFINET high-feature	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes
ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • Communication / Protocol         communication module is supported         • PROFINET standard         • PROFINET high-feature         • EtherNet/IP	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes
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ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         EMC emitted interference         Communication/ Protocol         communication module is supported         • PROFINET standard         • PROFINET high-feature         • EtherNet/IP         • Modbus RTU         • Modbus TCP         • PROFIBUS	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes Yes Yes
ambient temperature         • during operation         • during storage and transport         environmental category         • during operation according to IEC 60721         • during storage according to IEC 60721         • during transport according to IEC 60721         • during transport according to IEC 60721         EMC emitted interference         Communication Protocol         communication module is supported         • PROFINET standard         • PROFINET high-feature         • EtherNet/IP         • Modbus RTU         • Modbus TCP         • PROFIBUS         UL/CSA ratings	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes Yes Yes
ambient temperature • during operation • during storage and transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 EMC emitted interference Communication / Protocol communication module is supported • PROFINET standard • PROFINET high-feature • EtherNet/IP • Modbus RTU • Modbus TCP • PROFIBUS UL/CSA ratings manufacturer's article number	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes Yes Yes
ambient temperature • during operation • during storage and transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 EMC emitted interference Communication / Protocol communication module is supported • PROFINET standard • PROFINET high-feature • EtherNet/IP • Modbus RTU • Modbus TCP • PROFIBUS UL/CSA ratings manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes Yes Yes Yes
ambient temperature • during operation • during storage and transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 EMC emitted interference Communication / Protocol communication module is supported • PROFINET standard • PROFINET standard • PROFINET high-feature • EtherNet/IP • Modbus RTU • Modbus TCP • PROFIBUS UL/CSA ratings manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V according	<ul> <li>-25 +60 °C; Please observe derating at temperatures of 40 °C or above</li> <li>-40 +80 °C</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>acc. to IEC 60947-4-2: Class A, Class B on request</li> </ul> Yes Yes Yes Yes Yes Yes Siemens type: 3RV2742, max. 70 A or 3VA51, max. 125 A; lq = 10 kA

<ul> <li>— usable for High Faults at 460/480 V at inside- delta circuit according to UL</li> </ul>	Siemens type: 3VA 125 \A; Iq max = 65 kA
<ul> <li>— usable for Standard Faults at 575/600 V according to UL</li> </ul>	Siemens type: 3RV ax. 70 A or 3 // 51, m at. 12 / .; q = 1   A
— usable for High Faults at 575/600 V at inside- delta circuit according to UL	Siemens type: 3VA51, max. 125 A; lq max = 65 kA
<ul> <li>usable for Standard Faults at 575/600 V at inside-delta circuit according to UL</li> </ul>	Siemens type: 3VA51, max. 125 A; lq = 10 kA
<ul> <li>of the fuse</li> </ul>	
<ul> <li>— usable for Standard Faults up to 575/600 V according to UL</li> </ul>	Type: Class RK5 / K5, max. 200 A; Iq = 10 kA
<ul> <li>— usable for High Faults up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 225 A; Iq = 100 kA
<ul> <li>— usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class RK5 / K5, max. 200 A; Iq = 10 kA
<ul> <li>usable for High Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 225 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
<ul> <li>at 200/208 V at 50 °C rated value</li> </ul>	15 hp
<ul> <li>at 220/230 V at 50 °C rated value</li> </ul>	20 hp
<ul> <li>at 460/480 V at 50 °C rated value</li> </ul>	40 hp
• at 200/208 V at inside-delta circuit at 50 °C rated value	30 hp
<ul> <li>at 220/230 V at inside-delta circuit at 50 °C rated value</li> </ul>	30 hp
<ul> <li>at 460/480 V at inside-delta circuit at 50 °C rated value</li> </ul>	75 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front according to IEC	IP00; IP20 with cover
60529	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover
electromagnetic compatibility	acc. to IEC 60947-4-2
ATEX	
certificate of suitability	
• ATEX	Yes
• IECEx	Yes
<ul> <li>according to ATEX directive 2014/34/EU</li> </ul>	BVS 18 ATEX F 003 X
type of protection according to ATEX directive 2014/34/EU	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]
hardware fault tolerance according to IEC 61508 relating to ATEX	0
hardware fault tolerance according to IEC 61508 relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX	
relating to ATEX PFDavg with low demand rate according to IEC 61508	
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508	<b>3</b> 0.008
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX	5E-7 1/h
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life	3 0.008 5E-7 1/h SIL1
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals	3 0.008 5E-7 1/h SIL1 3 s
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX	3 0.008 5E-7 1/h SIL1
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals General Product Approval	3 0.008 5E-7 1/h SIL1 3 s
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals	3 0.008 5E-7 1/h SIL1 3 s
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals General Product Approval	3 0.008 5E-7 1/h SIL1 3 s
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals General Product Approval	3 0.008 5E-7 1/h SIL1 3 s
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relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals General Product Approval Confirmation Confirmation Declaration	3       0.008         5E-7 1/h         SIL1         3 s         EMC         UL         EMC         UL         EMC         Con of         Test Certificates         Marine / Shipping
relating to ATEX PFDavg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX Certificates/ approvals General Product Approval Confirmation Confirmation Confirmation Confirmation	3       0.008         5E-7 1/h         SIL1         3 s         EMC         UL         EMC         UL         EMC         Con of         Test Certificates         Marine / Shipping



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=3RW5525-3HA14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5525-3HA14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5525-3HA14

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5525-3HA14&lang=en

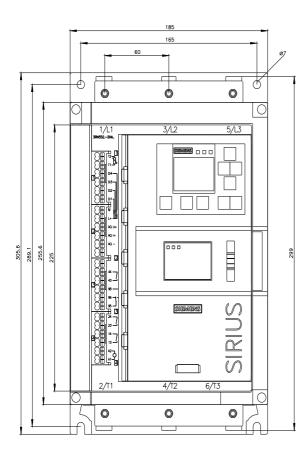
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

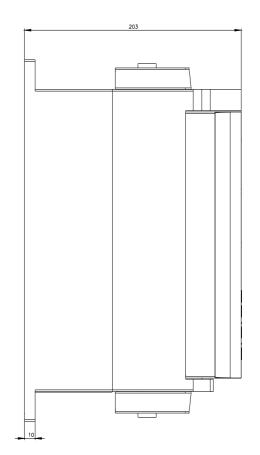
https://support.industry.siemens.com/cs/ww/en/ps/3RW5525-3HA14/char

Characteristic: Installation altitude

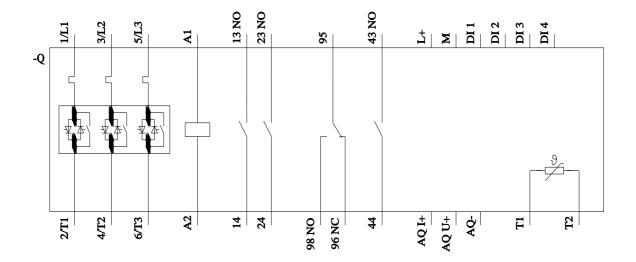
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5525-3HA14&objecttype=14&gridview=view1 Simulation Tool for Soft Starters (STS)

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









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