SIEMENS



Data sheet

3RW5527-1HA14



SIRIUS soft starter 200-480 V 93 A, 110-250 V AC Screw terminals

product brand nameSIRIUSproduct categoryHybrid switching devicesproduct designationSoft starterproduct type designation3RW55manufacturer's article number3RW5980-0HF00• of high feature HMI module usable3RW5980-0CS00• of communication module PROFINET standard usable3RW5950-0CH00• of communication module PROFINET high-feature usable3RW5950-0CH00	
product designation Soft starter product type designation 3RW55 manufacturer's article number 3RW5980-0HF00 • of high feature HMI module usable 3RW5980-0HF00 • of communication module PROFINET standard usable 3RW5980-0CS00 • of communication module PROFINET high-feature 3RW5950-0CH00	
product type designation 3RW55 manufacturer's article number 3RW5980-0HF00 • of high feature HMI module usable 3RW5980-0HF00 • of communication module PROFINET standard usable 3RW5980-0CS00 • of communication module PROFINET high-feature 3RW5950-0CH00	
manufacturer's article number • of high feature HMI module usable 3RW5980-0HF00 • of communication module PROFINET standard usable 3RW5980-0CS00 • of communication module PROFINET high-feature 3RW5950-0CH00	
of high feature HMI module usable <u>3RW5980-0HF00</u> of communication module PROFINET standard <u>3RW5980-0CS00</u> of communication module PROFINET high-feature <u>3RW5950-0CH00</u>	
of communication module PROFINET standard usable of communication module PROFINET high-feature <u>3RW5950-0CH00</u>	
of communication module PROFIBUS usable <u>3RW5980-0CP00</u>	
of communication module Modbus TCP usable <u>3RW5980-0CT00</u>	
of communication module Modbus RTU usable <u>3RW5980-0CR00</u>	
of communication module Ethernet/IP <u>3RW5980-0CE00</u>	
• of circuit breaker usable at 400 V <u>3VA2216-7MN32-0AA0; Type of coordination 1, lq = 15 kA</u> ,	<u>CLASS 10</u>
• of circuit breaker usable at 500 V <u>3VA2216-7MN32-0AA0; Type of coordination 1, lq = 10 kA.</u>	<u>CLASS 10</u>
• of circuit breaker usable at 400 V at inside-delta circuit <u>3VA2220-7MN32-0AA0: Type of coordination 1, lq = 15 kA.</u>	<u>CLASS 10</u>
• of circuit breaker usable at 500 V at inside-delta circuit <u>3VA2220-7MN32-0AA0; Type of coordination 1, lq = 10 kA</u> ,	CLASS 10
• of the gG fuse usable up to 690 V <u>3NA3136-6; Type of coordination 1, Iq = 65 kA</u>	
• of the gG fuse usable at inside-delta circuit up to 500 V <u>3NA3136-6; Type of coordination 1, Iq = 65 kA</u>	
• of full range R fuse link for semiconductor protection usable up to 690 V <u>3NE1224-0; Type of coordination 2, Iq = 65 kA</u>	
• of back-up R fuse link for semiconductor protection usable up to 690 V 3NE3227: Type of coordination 2, Iq = 65 kA	
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 %	

Subject to change without notice © Copyright Siemens

• CE marking	Yes
5	Yes Yes Yes
UL approval CSA approval	
CSA approval	res
product component	
HMI-High Feature	Yes
is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	3
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	100 mg
for main current circuit	100 ms 100 ms
for control circuit	
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	
between main and auxiliary circuit	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	
• ramp-up (soft starting)	Yes
• ramp-down (soft stop)	Yes
breakaway pulse	Yes
adjustable current limitation	Yes
 creep speed in both directions of rotation 	Yes
pump ramp down	Yes
• DC braking	Yes
motor heating	Yes
slave pointer function	Yes
trace function	Yes
intrinsic device protection	Yes
 motor overload protection 	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.
 evaluation of thermistor motor protection 	Yes; Type A PTC or Klixon / Thermoclick
inside-delta circuit	Yes
• auto-RESET	Yes
manual RESET	Yes
remote reset	Yes
 communication function 	Yes
 operating measured value display 	Yes
event list	Yes
error logbook	Yes
 via software parameterizable 	Yes
• via software configurable	Yes
screw terminal	Yes
 spring-loaded terminal 	No
PROFlenergy	Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules
 firmware update 	Yes

 removable terminal for control circuit 	Yes
 voltage ramp 	Yes Yes (D) dientudong
torque control	Yes
 combined braking 	Yes
 analog output 	Yes; 4 20 mA (default) / 0 10 V
 programmable control inputs/outputs 	Yes
 condition monitoring 	Yes
 automatic parameterisation 	Yes
 application wizards 	Yes
 alternative run-down 	Yes
 emergency operation mode 	Yes
 reversing operation 	Yes
 soft starting at heavy starting conditions 	Yes
Power Electronics	
operational current	
• at 40 °C rated value	93 A
 at 40 °C rated value minimum 	19 A
• at 50 °C rated value	82.5 A
• at 60 °C rated value	75.5 A
operational current at inside-delta circuit	
• at 40 °C rated value	161 A
• at 50 °C rated value	143 A
• at 60 °C rated value	131 A
operating voltage	
rated value	200 480 V
at inside-delta circuit rated value	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 	22 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	45 kW
 at 400 V at 40 °C rated value 	45 kW
 at 400 V at inside-delta circuit at 40 °C rated value 	90 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 tolerance of the operating frequency	10 %
minimum load [%]	10 %; Relative to set le
power loss [W] for rated value of the current at AC	
• at 40 °C after startup	28 W
• at 50 °C after startup	25 W
 at 60 °C after startup 	23 W
power loss [W] at AC at current limitation 350 %	
 power loss [W] at AC at current limitation 350 % at 40 °C during startup 	1 258 W
 power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup 	1 065 W
 power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup at 60 °C during startup 	1 065 W 948 W
 power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup at 60 °C during startup type of the motor protection 	1 065 W
power loss [W] at AC at current limitation 350 % • at 40 °C during startup • at 50 °C during startup • at 60 °C during startup type of the motor protection Control circuit/ Control	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
power loss [W] at AC at current limitation 350 % • 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	1 065 W 948 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
number of digital outputs	4
number of digital outputs parameterizable	3
number of digital outputs not parameterizable	1
digital output version	3 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	
switching capacity current of the relay outputs	
at AC-15 at 250 V rated value	3 A
at DC-13 at 24 V rated value	1A
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	200 mm
forwards	10 mm
blowards	0 mm
• upwards	100 mm
downwards	75 mm 5 mm
at the side	2 1111
weight without packaging	7.15 kg
Connections/ Terminals	
Connections/ Terminals type of electrical connection	7.15 kg
Connections/ Terminals type of electrical connection • for main current circuit	7.15 kg box terminal
Connections/ Terminals type of electrical connection • for main current circuit • for control circuit	7.15 kg box terminal screw-type terminals
Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum	7.15 kg box terminal
Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum wire length for thermistor connection	7.15 kg box terminal screw-type terminals 25 mm
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 ² maximum	7.15 kg box terminal screw-type terminals 25 mm 50 m
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum	7.15 kg box terminal screw-type terminals 25 mm 50 m 150 m
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum	7.15 kg box terminal screw-type terminals 25 mm 50 m
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum type of connectable conductor cross-sections	7.15 kg box terminal screw-type terminals 25 mm 50 m 150 m 250 m
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid	7.15 kg box terminal screw-type terminals 25 mm 50 m 150 m 250 m 1x (2.5 16 mm²)
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum type of connectable 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	7.15 kg box terminal screw-type terminals 25 mm 50 m 150 m 250 m 1x (2.5 16 mm²) 1x (2.5 50 mm²)
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 ² maximum • with conductor cross-section = 1.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum • with conductor cross-section = 2.5 mm ² maximum type of connectable 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	7.15 kg box terminal screw-type terminals 25 mm 50 m 150 m 250 m 1x (2.5 16 mm²)

 for main contacts for box terminal using the back clamping point solid 	1x (2.5 16 mm ²) 1x (10 2/0)
 at AWG cables for main contacts for box terminal using the back clamping point 	1x (10 2/0)
 for main contacts for box terminal using both clamping points solid 	2x (2.5 16 mm²)
 for main contacts for box terminal using both clamping points finely stranded with core end processing 	2x (2.5 35 mm²)
 for main contacts for box terminal using both clamping points stranded 	2x (6 16 mm²), 2x (10 50 mm²)
 for main contacts for box terminal using the back clamping point finely stranded with core end processing 	1x (2.5 50 mm²)
 for main contacts for box terminal using the back clamping point stranded 	1x (10 70 mm²)
type of connectable conductor cross-sections	
for control circuit solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
 for control circuit finely stranded with core end processing 	1x (0.5 2.5 mm ²), 2x (0.5 1.5 mm ²)
 at AWG cables for control circuit solid 	1x (20 12), 2x (20 14)
wire length	
 between soft starter and motor maximum 	800 m
 at the digital inputs at DC maximum 	1 000 m
tightening torque	
 for main contacts with screw-type terminals 	4.5 6 N·m
 for auxiliary and control contacts with screw-type 	0.8 1.2 N·m
terminals	
tightening torque [lbf·in]	
 for main contacts with screw-type terminals 	40 53 lbf·in
 for auxiliary and control contacts with screw-type 	7 10.3 lbf·in
terminals	
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
	5 000 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 -25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or
installation altitude at height above sea level maximum ambient temperature • during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum 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 manufacturer's article number	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum 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 manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum 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 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	 -25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A, Class B on request Yes Yes Yes Yes Yes Yes Yes Yes Siemens type: 3VA51, max. 125 A; lq = 10 kA

— usable for Standard Faults at 575/600 V according to UL	Siemens type: 3VA
 — usable for High Faults at 575/600 V at inside- delta circuit according to UL 	Siemens type: 3VA
 usable for Standard Faults at 575/600 V at inside-delta circuit according to UL 	Siemens type: 3VA51, max. 125 A; Iq = 10 kA
of the fuse	
 — usable for Standard Faults up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 300 A; lq = 10 kA
 — usable for High Faults up to 575/600 V according to UL 	Type: Class J / L, max. 250 A; lq = 100 kA
 — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 300 A; lq = 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; lq = 100 kA
operating power [hp] for 3-phase motors	
 at 200/208 V at 50 °C rated value 	25 hp
 at 220/230 V at 50 °C rated value 	30 hp
 at 460/480 V at 50 °C rated value 	60 hp
• at 200/208 V at inside-delta circuit at 50 °C rated	40 hp
value at 220/230 V at inside-delta circuit at 50 °C rated value 	50 hp
• at 460/480 V at inside-delta circuit at 50 °C rated value	100 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front according to IEC 60529	IP00; IP20 with cover
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
	acc. to fee 00347-4-2
ATEX	
ATEX certificate of suitability	
ATEX certificate of suitability • ATEX	Yes
ATEX certificate of suitability • ATEX • IECEx	Yes Yes
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU	Yes Yes BVS 18 ATEX F 003 X
ATEX certificate of suitability • ATEX • IECEx	Yes Yes
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive	Yes Yes BVS 18 ATEX F 003 X II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db],
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance according to IEC 61508	Yes Yes BVS 18 ATEX F 003 X 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]
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance according to IEC 61508 relating to ATEX PFDavg with low demand rate according to IEC 61508	Yes Yes BVS 18 ATEX F 003 X 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] 0
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008
ATEX certificate of suitability • ATEX • IECEX • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h
ATEX certificate of suitability • ATEX • IECEX • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 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 Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1
ATEX certificate of suitability • ATEX • IECEX • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 PFHD with high demand rate according to IEC 61508 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	Yes Yes BVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC
ATEX certificate of suitability • ATEX • IECEX • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 IEC 61508 relating to ATEX PFHD with high demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to IEC 61508 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	Yes EVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC C M C C M C M C C M C M C M C M C M C M C C C M C C M C C M C M C C M C C M C M C M C M C M C M C M C M C C M C M C C M C C C M C C C C C C C C C C C C C
ATEX certificate of suitability • ATEX • IECEx • according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU hardware fault tolerance 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 IEC 61508 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 Image: Confirmation of the service of the ser	Yes PVS 18 ATEX F 003 X 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] 0 0.008 5E-7 1/h SIL1 3 s EMC C C C C C C C C C C C C C



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=3RW5527-1HA14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5527-1HA14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5527-1HA14

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5527-1HA14&lang=en

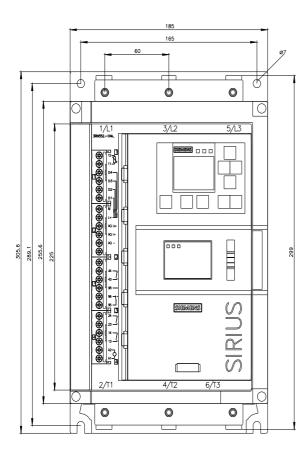
Characteristic: Tripping characteristics, I²t, Let-through current

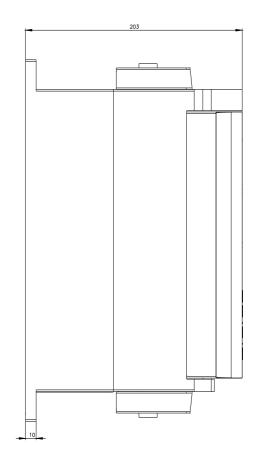
https://support.industry.siemens.com/cs/ww/en/ps/3RW5527-1HA14/char

Characteristic: Installation altitude

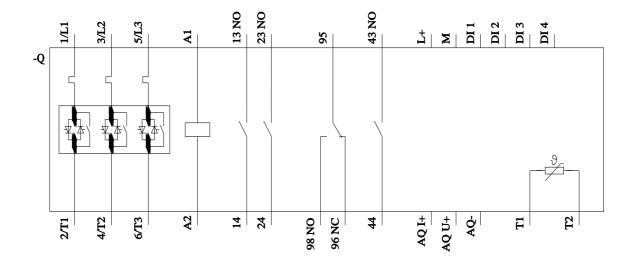
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5527-1HA14&objecttype=14&gridview=view1 Simulation Tool for Soft Starters (STS)

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









last modified:

9/12/2022 🖸

