SIEMENS

Data sheet 3RW5535-2HF14

SIRIUS



SIRIUS soft starter 200-480 V 143 A, 110-250 V AC, spring-type terminals Failsafe

Figure similar

product brand name

product brand name	
product category	Hybrid switching devices
product designation	Failsafe soft starters
product type designation	3RW55
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 usable	3RW5950-0CH00
 of communication module PROFIBUS usable 	3RW5980-0CP00
 of communication module Modbus TCP usable 	3RW5980-0CT00
 of communication module Modbus RTU usable 	3RW5980-0CR00
 of communication module Ethernet/IP 	3RW5980-0CE00
• of circuit breaker usable at 400 V	3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of the gG fuse usable up to 690 V 	3NA3244-6; Type of coordination 1, Iq = 65 kA
• of the gG fuse usable at inside-delta circuit up to 500 V	3NA3244-6; Type of coordination 1, Iq = 65 kA
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NE1227-0: Type of coordination 2, Iq = 65 kA
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3NE3233: Type of coordination 2. lq = 65 kA
 of the redundant contactor for applications > SIL 1 according to EN 62061 	3RT1064
 of the redundant contactor for applications > SIL 1 at inside-delta circuit according to EN 62061 	3RT1064
 of the redundant contactor for applications > SIL 1 according to EN ISO 13849-1 	3RT1066
 of the redundant contactor for applications > SIL 1 at inside-delta circuit according to EN ISO 13849-1 	3RT1066
eneral 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	5 (based on IEC 61557-12)

certificate of suitability	
• CE marking	Yes
UL approval	Yes
CSA approval	Yes
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	
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 protective separation	
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)	11/22/2019
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	No
spring-loaded terminal	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules
• firmware update	Yes
•	

voltage ramp	Yes
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 	143 A
 at 40 °C rated value minimum 	29 A
 at 50 °C rated value 	128 A
at 60 °C rated value	118 A
operational current at inside-delta circuit	
• at 40 °C rated value	248 A
• at 50 °C rated value	222 A
at 60 °C rated value	204 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	-15 %
inside-delta circuit	
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 	37 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	75 kW
 at 400 V at 40 °C rated value 	75 kW
at 400 V at inside-delta circuit at 40 °C rated value	132 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	43 W
at 50 °C after startup	38 W
at 60 °C after startup	35 W
power loss [W] at AC at current limitation 350 %	
 at 40 °C during startup 	2 115 W
 at 50 °C during startup 	1 795 W
at 60 °C during startup	1 593 W
type of the motor protection	Electronic, tripping in the event of thermal overload of the motor
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz	110 250 V
● at 60 Hz	110 250 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 %
relative positive tolerance of the control supply voltage at	10 %

relative negative tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply current in standby mode rated value holding current in bypass operation rated value inrush current by closing the bypass contacts maximum inrush current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection 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= 300 A); Is not part of scope of supply	AC at 60 Hz	
Indiator longiture tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply current in standary mode rated value 100 mA 10		50 60 Hz
Inclusive positive tolorance of the control supply voltage requency 10 %	relative negative tolerance of the control supply voltage	
control supply current in standby mode rated value 100 mA	relative positive tolerance of the control supply voltage	10 %
Bolding current in bypass operation rated value 180 mA 180 m		100 mA
Incush current by closing the bypass contacts maximum A 3 A First in current peak at application of control supply voltage maximum A current peak at application of control supply voltage A 6 B see (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit design of short-circuit protection for control circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit breaker (fiscal FAA). 6 A quick-acting fase (fiscal FAA). C fininisture circuit a with fisal-sale a number of digital outputs a number of digital outputs a number of digital outputs and fisal-sale a number of digital outputs and fisal-sale a number of digital outputs and fisal-sale a number of digital output version a take 15 250 V rated value a 1 A 2 commally open contacts (NO) / 1 normally closed contact (NC) / 1 changeover contact (CO) 3 A 3 A 4 Can fisal Sale V rated value a 1 A Corporation with saledy-valued request when awitched off via control inputs maximum 4 at the 15 at 24 V rated value 5 A Can fisal sale V rated value 4 A Ca fisal sale V rated value 5 A Can fisal sale V rated value 5 A Can fisal sale V rated value 6 A Can fisal sale V rated value 6 A Can fisal sale V rated value		180 mA
invariant preak at application of control supply voltage maximum and duration of invariant current peak at application of control supply voltage design of the overvoltage protection		0.8 A
voltage design of the overvoltage protection design of short-circuit protection for control circuit braker (cu= 00.A), C8 miniature circuit breaker (cu= 300.A); Is not part of soope of supply number of digital inputs * with fall-safe * number of digital outputs * number of digital outputs with fall-safe * number of digital outputs parameterizable * number of digital outputs parameterizable * number of digital outputs parameterizable * number of digital output sparameterizable * number of digital output version contact (CO) number of analog outputs * all AC-15 at 250 V rated value * all CC-13	inrush current peak at application of control supply voltage	43 A
A gG fase (Paur I AA), 6 A, quick-acting fase (tou=1 kA), C I ministure circuit breaker (fau= 300 A), C 8 ministure circuit breaker (fau= 300 A), I 8 ministarit circuit breaker (fau= 300 A), I 8 m		1.6 ms
breaker (que 900 A). C6 ministure circuit breaker (lcue 300 A); Is not part of supply Imputs/ Outputs Imputs of digital imputs • with fall-safe • parameterizable • number of digital outputs • Number of digital outputs with fall-safe • number of digital outputs parameterizable • number of digital outputs parameterizable • number of digital outputs parameterizable • digital output version number of analog outputs • at AC-15 at 250 V rated value •	design of the overvoltage protection	Varistor
number of digital inputs • with fall-safe • parameterizable • number of digital outputs • Number of digital outputs • Number of digital outputs with fall-safe • number of digital outputs with fall-safe • number of digital outputs parameterizable • 1 A Parameterizable • number of digital outputs parameterizable • 1 A Para	design of short-circuit protection for control circuit	breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of
with fall-safe parameterizable number of digital outputs Number of digital outputs with fall-safe number of digital outputs with fall-safe number of digital outputs parameterizable number of digital outputs parameterizable number of digital outputs parameterizable number of adigital outputs parameterizable number of analog outputs number of analog outputs at Ac-15 at 250 V arted value at OC-13 at 24 V rated value ac ortor linpus maximum mounting position OFF-delay time with safety-related request when switched off vac cortor linpus maximum installation/ mounting/ dimensions Trequired spacing with side-by-side mounting depth appared by the safety-related mounting orowards on mm equired spacing with side-by-side mounting orowards on mm obackwards on mm obackwards on mm ownwards obackwards on mm ownwards odownwards odownwards odownwards odownwards odownwards odownwards odownwards odownwards of mm or on though contention or main current circuit of or control circuit of or control circuit of or control circuit of or control circuit with conductor cross-section = 0.5 mm² maximum	Inputs/ Outputs	
• parameterizable 4 • number of digital outputs 3 • Number of digital outputs with fall-safe 1 • number of digital outputs parameterizable 2 • number of digital outputs parameterizable 2 • number of digital outputs not parameterizable 1 output version 2 number of analog outputs 1 switching capacity current of the relay outputs • at AC-15 at 260 V rated value 3 A • at DC-13 at 24 V rated value 1 A Response times 7 OFF-delay time with safety-related request when switched off via control inputs maximum Installation functing dimensions 7 mounting position Vertical (can be rotated +/- 90° and titled forward or backward +/- 22,5°) fastening method 500 mm depth 200 mm eforwards 100 mm eforwards 100 mm elowards 0 mm elowards	number of digital inputs	4
• number of digital outputs • Number of digital outputs with fail-safe • number of digital outputs parameterizable digital output version	• with fail-safe	1
Number of digital outputs with fail-safe number of digital outputs parameterizable number of digital output version 2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1 changeover contact (CO) number of analog outputs 1 2 switching capacity current of the relay outputs 1 3 A 1 4 C-15 at 250 V rated value 1 A Response times OFF-delay time with safety-related request when switched off as control inputs maximum founding dimensions Wertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method fastening method screw fixing 100 mm depth 100 mm 4 50 mm 4 100 mm 5 10 mm 5 10 mm 4 100 mm 5 10 mm 5 10 mm 5 10 mm 6 10 mm 6 10 mm 6 10 mm 7 5 mm 9 10 mm 9 10 mm 9 10 mm 10 m	parameterizable	4
Number of digital outputs with fail-safe number of digital outputs parameterizable number of digital output version 2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1 changeover contact (CO) number of analog outputs 1 2 switching capacity current of the relay outputs 1 3 A 1 4 C-15 at 250 V rated value 1 A Response times OFF-delay time with safety-related request when switched off as control inputs maximum founding dimensions Wertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method fastening method screw fixing 100 mm depth 100 mm 4 50 mm 4 100 mm 5 10 mm 5 10 mm 4 100 mm 5 10 mm 5 10 mm 5 10 mm 6 10 mm 6 10 mm 6 10 mm 7 5 mm 9 10 mm 9 10 mm 9 10 mm 10 m		
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• number of digital outputs not parameterizable 2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1 changeover contact (CO)	 Number of digital outputs with fail-safe 	1
digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value 1 A Response times OFF-Gelay time with safety-related request when switched off via control injust maximum Installation mounting dimensions mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing • forwards • backwards • outpwards • at the side weight without packaging Connections/ Terminals type of electrical connection • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for DIN cable lug for main contacts finely stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid	 number of digital outputs parameterizable 	2
contact (CO) number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value at DC-13 at 24 V rated value at DC-13 at 24 V rated value but DC-14 at 24 V rated value at DC-16 at 250 V rated request when switched off via control inputs maximum Installation/ mounting/ dimensions Totallation/ mounting/ dimensions Totallation	number of digital outputs not parameterizable	1
switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value 1 A Response times OFF-delay time with safety-related request when switched off via control inputs maximum Installation for mounting / dimensions mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing height vidth 185 mm depth 203 mm required spacing with side-by-side mounting forwards backwards 0 mm upwards downwards downwards downwards downwards at the side formal current circuit for control circuit for control circuit wite length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with connected bile connects finely stranded for OIN cable lug for main contacts finely stranded for connection is connection circuit solid for OIN cable lug for main contacts finely stranded for connection connection circuit solid for connectable conductor cross-sections for OIN cable lug for main contacts finely stranded for control circuit solid for control circuit solid for control circuit solid for control circuit solid for OIN cable lug for main contacts finely stranded for control circuit solid for OIN cable lug for main contacts finely stranded for control circuit solid	digital output version	
at AC-15 at 250 V rated value at DC-13 at 24 V rated value To Fr-delay time with safety-related request when switched off via control inputs maximum Installation/ mounting/ dimensions mounting position Vertical (can be rotated +/- 90* and tilted forward or backward +/- 22.5*) fastening method height 300 mm width 185 mm depth 203 mm required spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting forwards value and spacing with side-by-side mounting formards value and spacing with side-by-side mounting formards value and spacing with side-by-side mounting for maximum value and spacing with side-by-side mounting for main current circuit value and spacing with side-by-side mounting type of electrical connection with conductor cross-section = 0.5 mm² maximum virie length for thermistor connection with conductor cross-section = 2.5 mm² maximum vith conductor cross-sect	number of analog outputs	1
e at DC-13 at 24 V rated value Response times OFF-delay time with safety-related request when switched off via control inputs maximum Installation/ mounting/ dimensions mounting position Method Screw fixing Assening method Assening meth	switching capacity current of the relay outputs	
Response times OFF- delay time with safety-related request when switched off via control inputs maximum 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 • forwards • packwards • upwards • upwards • downwards • downwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for romin current circuit • for control circuit with of onnection bar maximum with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for DIN cable lug for main contacts stranded • for control circuit solid • for control circuit solid • for control circuit solid • for control conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts stranded • for control circuit solid • for control circuit solid • for control circuit solid	• at AC-15 at 250 V rated value	3 A
OFF-delay time with safety-related request when switched off via control inputs maximum mounting position Vertical (can be rotated +/- 90" and tilted forward or backward +/- 22.5") fastening method screw fixing neight 306 mm width depth 203 mm required spacing with side-by-side mounting forwards backwards upwards 100 mm downwards townwards town	at DC-13 at 24 V rated value	1 A
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 • forwards 100 mm • backwards 0 mm • upwards 100 mm • downwards 100 mm • downwards 5 mm • at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection • for control circuit spring-loaded terminals with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid • for connectable conductor cross-sections • for control circuit solid • for control circuit spring-loaded terminals 2x (15 95 mm²) • for connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid	Response times	
mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing 306 mm width depth 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • 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 with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for DIN cable lug for main contacts finely stranded • for control circuit solid vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 306 mm 107 mm 9 mm 9 mm 9 with conductor cross-section 9 mm 100 mm 1	via control inputs maximum	100 ms
fastening method height width depth 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging connections/ Terminals type of electrical connection • for control circuit with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum for DIN cable lug for main contacts finely stranded • for control circuit sonnectable conductor cross-sections • for DIN cable lug for main contacts finely stranded • for connectable conductor cross-sections • for connectable conductor cross-sections • for connectable conductor cross-sections • for control circuit solid • for control circuit stolid conductor cross-sections • for DIN cable lug for main contacts finely stranded • for control circuit solid 2x (25 120 mm²) type of connectable conductor cross-sections • for control circuit solid 2x (25 1.5 mm²)	Installation/ mounting/ dimensions	
height 306 mm width 185 mm depth 203 mm required spacing with side-by-side mounting 10 mm • hackwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection 6 for control circuit • for control circuit busbar connection • for control circuit spring-loaded terminals with of connection bar maximum 25 mm wire length for thermistor connection 0 with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 0.5 mm² maximum 150 m • with conductor cross-section = 2.5 mm² maximum 250 m type of connectable conductor cross-sections 2x (16 95 mm²) • for DIN cable lug for main contacts trinely stranded 2x (25 120 mm²) type of connectable conductor cross-sections 6 for control circuit solid • for control circuit solid 2x (0.25 1.5 mm²)	mounting position	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
width 185 mm depth 203 mm required spacing with side-by-side mounting • forwards 10 mm • backwards 0 mm • downwards 75 mm • at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection • for control circuit spring-loaded terminals with conductor cross-section = 0.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • for DIN cable lug for main contacts finely stranded 2x (25 120 mm²) type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²) • for control circuit solid	fastening method	screw fixing
depth 203 mm required spacing with side-by-side mounting 0 mm • forwards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection • for control circuit busbar connection • for control circuit spring-loaded terminals width of connection bar maximum 25 mm wire length for thermistor connection 50 m • with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 1.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • for DIN cable lug for main contacts stranded 2x (16 95 mm²) • for DIN cable lug for main contacts stranded 2x (25 120 mm²) • for connectable conductor cross-sections 2x (25 120 mm²) • for control circuit solid 2x (0.25 1.5 mm²)	height	306 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side **eight without packaging **Connections/ Terminals **type of electrical connection • for control circuit • with conductor cross-sections • for DIN cable lug for main contacts finely stranded • for control circuit solid **equired spacing with side-by-side mounting 10 mm	width	185 mm
• forwards • backwards • backwards • upwards • upwards • downwards • at the side • at the side • smm weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit • for control circuit width of connection bar maximum wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)	depth	203 mm
backwards upwards upwards downwards other side smm weight without packaging s.5 kg Connections/ Terminals type of electrical connection of ro main current circuit of ro control circuit of ro control circuit with of connection but naximum with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum owith conductor cross-sections of ro DIN cable lug for main contacts stranded of ro DIN cable lug for main contacts finely stranded va (25 120 mm²) type of connectable conductor cross-sections of ro control circuit solid va (0.25 1.5 mm²)	required spacing with side-by-side mounting	
 upwards downwards at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit spring-loaded terminals width of connection bar maximum 25 mm wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	• forwards	10 mm
 downwards at the side 5 mm weight without packaging 8.5 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit spring-loaded terminals width of connection bar maximum 25 mm wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded for control circuit solid 2x (0.25 1.5 mm²) type of connectable conductor cross-sections for control circuit solid 	• backwards	0 mm
• at the side	• upwards	100 mm
weight without packaging Connections/ Terminals type of electrical connection • for main current circuit busbar connection • for control circuit spring-loaded terminals width of connection bar maximum 25 mm wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 1.5 mm² maximum 150 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • for DIN cable lug for main contacts stranded 2x (16 95 mm²) • for DIN cable lug for main contacts finely stranded 2x (25 120 mm²) type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)	• downwards	75 mm
type of electrical connection • for main current circuit • for control circuit width of connection bar maximum ewith conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid 2x (0.25 1.5 mm²)	• at the side	5 mm
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 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)		8.5 kg
 for main current circuit for control circuit spring-loaded terminals width of connection bar maximum wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	Connections/ Terminals	
 for control circuit width of connection bar maximum wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	type of electrical connection	
width of connection bar maximum wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²)	for main current circuit	busbar connection
wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum 250 m type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded 2x (16 95 mm²) 2x (25 120 mm²) type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)	• for control circuit	spring-loaded terminals
 with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	width of connection bar maximum	25 mm
 with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	wire length for thermistor connection	
 with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (0.25 1.5 mm²) 	• with conductor cross-section = 0.5 mm² maximum	50 m
type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded 2x (16 95 mm²) 2x (25 120 mm²) type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)	• with conductor cross-section = 1.5 mm² maximum	150 m
 for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections for control circuit solid 2x (16 95 mm²) 2x (25 120 mm²) 2x (0.25 1.5 mm²) 	• with conductor cross-section = 2.5 mm² maximum	250 m
 ◆ for DIN cable lug for main contacts finely stranded 2x (25 120 mm²) type of connectable conductor cross-sections ◆ for control circuit solid 2x (0.25 1.5 mm²) 	type of connectable conductor cross-sections	
type of connectable conductor cross-sections • for control circuit solid 2x (0.25 1.5 mm²)	 for DIN cable lug for main contacts stranded 	2x (16 95 mm²)
• for control circuit solid 2x (0.25 1.5 mm²)	• for DIN cable lug for main contacts finely stranded	2x (25 120 mm²)
,	type of connectable conductor cross-sections	
• for control circuit finely stranded with core end processing 2x (0.25 1.5 mm²)	• for control circuit solid	2x (0.25 1.5 mm²)

- for ANIC cobles for a start size of	0/04 40)
for AWG cables for control circuit solid	2x (24 16)
 for AWG cables for control circuit finely stranded with core end processing 	2x (24 16)
wire length	
between soft starter and motor maximum	800 m
at the digital inputs at DC maximum	1 000 m
tightening torque	1 000 111
	10 14 N·m
 for main contacts with screw-type terminals for auxiliary and control contacts with screw-type 	0.8 1.2 N·m
terminals	0.6 1.2 IN III
tightening torque [lbf·in]	
 for main contacts with screw-type terminals 	89 124 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	2 000 m; Derating as of 1000 m, see catalog
ambient temperature	
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
during storage and transport	-40 +80 °C
environmental category	
 during operation according to IEC 60721 	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2
	(sand must not get into the devices), 3M6
 during storage according to IEC 60721 	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
a during transport according to IEC 60721	·
during transport according to IEC 60721 EMC emitted interference	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
	acc. to 1EC 00347-4-2. Class A
Communication/ Protocol	
communication module is supported	V
PROFINET standard	Yes
PROFINET high-feature	Yes
• EtherNet/IP	Yes
Modbus RTU	Yes
Modbus TCP	Yes
• PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
 usable for Standard Faults at 460/480 V according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
 usable for High Faults at 460/480 V according to UL 	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA
 usable for Standard Faults at 460/480 V at inside- delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
 usable for High Faults at 460/480 V at inside-delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA
 usable for Standard Faults at 575/600 V according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
— usable for High Faults at 575/600 V at inside-delta	
circuit according to UL	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA
 usable for Standard Faults at 575/600 V at inside- delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA Siemens type: 3VA52, max. 250 A; Iq = 10 kA
 usable for Standard Faults at 575/600 V at insidedelta circuit according to UL of the fuse 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
— usable for Standard Faults at 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
— usable for Standard Faults at 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA
— usable for Standard Faults at 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
— usable for Standard Faults at 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA
— usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
— usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
— usable for Standard Faults at 575/600 V at inside- delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA
— usable for Standard Faults at 575/600 V at inside- delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors • at 200/208 V at 50 °C rated value	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA
— usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors • at 200/208 V at 50 °C rated value • at 220/230 V at 50 °C rated value	Siemens type: 3VA52, max. 250 A; Iq = 10 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA Type: Class RK5 / K5, max. 350 A; Iq = 10 kA Type: Class J / L, max. 350 A; Iq = 100 kA 40 hp 40 hp

• at 460/480 V at inside-delta circuit at 50 °C rated value	150 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
safety device type according to IEC 61508-2	Type B
B10d value	500 000
Safety Integrity Level (SIL)	
according to IEC 61508	SIL1
SIL Claim Limit (subsystem) according to EN 62061	SIL 1
performance level (PL) according to EN ISO 13849-1	С
category according to EN ISO 13849-1	2
stop category according to EN 60204-1	0
Safe failure fraction (SFF)	60 %
average diagnostic coverage level (DCavg)	90 %
diagnostics test interval by internal test function maximum	1 000 s
PFHD with high demand rate according to EN 62061	1E-6 1/h
PFDavg with low demand rate according to IEC 61508	0.09
hardware fault tolerance according to IEC 61508	0
T1 value for proof test interval or service life according to IEC 61508	20 a
safe state	Open load circuit
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
ATEX	
certificate of suitability	
• ATEX	Yes
• IECEx	Yes
 according to ATEX directive 2014/34/EU 	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
PFDavg with low demand rate according to IEC 61508 relating to ATEX	0.008
PFHD with high demand rate according to EN 62061 relating to ATEX	5E-7 1/h
Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX	SIL1
T1 value for proof test interval or service life according to IEC 61508 relating to ATEX	3 a

Certificates/ approvals

General Product Approval



Confirmation









EMC For use in hazardous locations Declaration of Conformity Test Certificates Marine / Shipping









Type Test Certificates/Test Report



Marine / Shipping







Confirmation

other

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5535-2HF14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5535-2HF14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5535-2HF14

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5535-2HF14&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

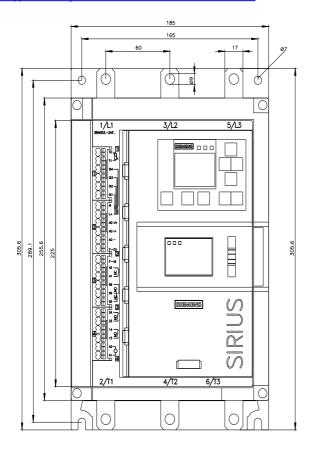
https://support.industry.siemens.com/cs/ww/en/ps/3RW5535-2HF14/char

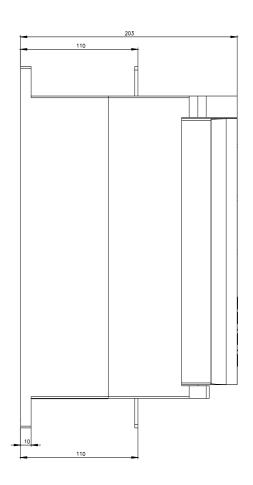
Characteristic: Installation altitude

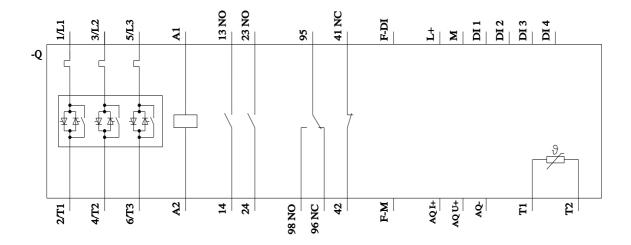
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5535-2HF14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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