SIEMENS

product brand name

3RW5248-6TC04 **Data sheet**

SIRIUS



SIRIUS soft starter 200-480 V 570 A, 24 V AC/DC Screw terminals Thermistor

product branching	011100
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW52
manufacturer's article number	
 of standard HMI module usable 	3RW5980-0HS00
 of high feature HMI module usable 	3RW5980-0HF00
 of communication module PROFINET standard usable 	3RW5980-0CS00
 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 	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V 	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 500 V at inside-delta circuit	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of the gG fuse usable up to 690 V 	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
• of the gG fuse usable at inside-delta circuit up to 500 V	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NE1437-2; Type of coordination 2, Iq = 65 kA
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3NE3340-8; Type of coordination 2, Iq = 65 kA
eneral technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 20 s
current limiting value [%] adjustable	130 700 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component	
HMI-High Feature	No
• is supported HMI-Standard	Yes
• is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	3
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	
for main current circuit	100 ms
	100 ms

insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 600 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	0 KV
between main and auxiliary circuit	600 V
shock resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
vibration resistance	15 mm to 6 Hz; 2g to 500 Hz
	AC 53a
utilization category according to IEC 60947-4-2	Q Q
reference code according to IEC 81346-2	02/15/2018
Substance Prohibitance (Date)	02/15/2016
product function	Yes
• ramp-up (soft starting)	Yes
• ramp-down (soft stop)	Yes
Soft Torque	
adjustable current limitation	Yes
pump ramp down intringia dovige protection	Yes
intrinsic device protection	Yes
motor overload protection	Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)
 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; By turning off the control supply voltage
communication function	Yes
 operating measured value display 	Yes; Only in conjunction with special accessories
• error logbook	Yes; Only in conjunction with special accessories
 via software parameterizable 	No
 via software configurable 	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication module
firmware update	Yes
 removable terminal for control circuit 	Yes
• torque control	No
analog output	No
Power Electronics	
operational current	
• at 40 °C rated value	570 A
at 50 °C rated value	504 A
at 60 °C rated value	460 A
operational current at inside-delta circuit	
• at 40 °C rated value	987 A
at 50 °C rated value	873 A
at 60 °C rated value	796 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	160 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	315 kW
	045 130
 at 400 V at 40 °C rated value 	315 kW
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value 	560 kW

elative negative tolerance of the operating frequency	-10 % -10 %
elative positive tolerance of the operating frequency	10 %
idjustable motor current	
at rotary coding switch on switch position 1	240 A
at rotary coding switch on switch position 2	262 A
 at rotary coding switch on switch position 3 	284 A
 at rotary coding switch on switch position 4 	306 A
 at rotary coding switch on switch position 5 	328 A
 at rotary coding switch on switch position 6 	350 A
 at rotary coding switch on switch position 7 	372 A
 at rotary coding switch on switch position 8 	394 A
 at rotary coding switch on switch position 9 	416 A
 at rotary coding switch on switch position 10 	438 A
 at rotary coding switch on switch position 11 	460 A
 at rotary coding switch on switch position 12 	482 A
 at rotary coding switch on switch position 13 	504 A
 at rotary coding switch on switch position 14 	526 A
 at rotary coding switch on switch position 15 	548 A
 at rotary coding switch on switch position 16 	570 A
• minimum	240 A
djustable motor current	
 for inside-delta circuit at rotary coding switch on switch position 1 	416 A
 for inside-delta circuit at rotary coding switch on switch position 2 	454 A
 for inside-delta circuit at rotary coding switch on switch position 3 	492 A
 for inside-delta circuit at rotary coding switch on switch position 4 	530 A
 for inside-delta circuit at rotary coding switch on switch position 5 	568 A
for inside-delta circuit at rotary coding switch on switch position 6	606 A
for inside-delta circuit at rotary coding switch on switch position 7 for inside delta circuit at rotary coding switch on switch position 7	644 A
 for inside-delta circuit at rotary coding switch on switch position 8 for inside-delta circuit at rotary coding switch on switch 	682 A 721 A
position 9 • for inside-delta circuit at rotary coding switch on switch	759 A
position 10 • for inside-delta circuit at rotary coding switch on switch	797 A
position 11 • for inside-delta circuit at rotary coding switch on switch	835 A
position 12 • for inside-delta circuit at rotary coding switch on switch	873 A
position 13 • for inside-delta circuit at rotary coding switch on switch	911 A
position 14for inside-delta circuit at rotary coding switch on switch	949 A
for inside-delta circuit at rotary coding switch on switch	987 A
position 16	40.4
at inside-delta circuit minimum	416 A
ninimum load [%]	15 %; Relative to smallest settable le
ower loss [W] for rated value of the current at AC	
• at 40 °C after startup	183 W
at 50 °C after startup	163 W
at 60 °C after startup	153 W
oower loss [W] at AC at current limitation 350 %	
 at 40 °C during startup 	10 241 W
 at 50 °C during startup 	8 500 W
at 60 °C during startup	7 663 W
ontrol circuit/ Control	

control supply voltage at AC 4 4 V at 50 Hz rated value 24 V ration by Explain to telerance of the control supply voltage at AC at 50 Hz 20 % retailive negative telerance of the control supply voltage at Teather negative telerance of the control supply voltage at Teather negative telerance of the control supply voltage at Teather negative telerance of the control supply voltage at Teather negative telerance of the control supply voltage frequency 20 % control supply voltage frequency 5000 Hz retailive positive telerance of the control supply voltage frequency 10 % retailive positive telerance of the control supply voltage frequency 20 % a 1D Crafed value 24 V retailive positive telerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belerance of the control supply voltage at Teather negative belance of the control supply voltage at Teather negative belance of the control supply voltage at Teather negative belance of the control supply voltage at Teather negative belance of the control supply voltage at Teather negative belance of the Teather negative belance negative belance negative belance ne		
a 10 Hz ratind value		
	at 50 Hz rated value	
AC at 50 HZ relative positive tolerance of the control supply voltage at AC at 50 HZ relative positive tolerance of the control supply voltage at AC at 50 HZ relative negative tolerance of the control supply voltage at AC at 50 HZ relative negative tolerance of the control supply voltage at AC at 50 HZ 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 relative positive tolerance of the control supply voltage at DC relative negative tolerance of the control supply voltage at DC relative negative tolerance of the control supply voltage at DC relative positive tolerance of the control supply voltage at DC control supply current in standby mode rated value ADC relative positive tolerance of the control supply voltage at DC control supply current in standby mode rated value ADC control supply current peak at application of control supply current in stream pass operation rated value ADC duration of innish current peak at application of control supply voltage maximum design of the overvoltage protection design of short-circuit protection for control circuit breaker (pur-800 A), 6 minature circuit breaker (pur-800 A), 1s mot part of sopper digital inputs number of digital inputs • at AC-15 at 250 V rated value • at AC-15 at a 250 V rated value • at AC-15 at a 250 V rated value • at AC-15 at a 250 V	at 60 Hz rated value	24 V
AC at 50 Hz relative negative tolerance of the control supply voltage at AC at 60 Hz relative positive 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 relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply voltage * at IDC rarder value * at IDC rarder value * at IDC rarder value for the control supply voltage at IDC control supply control frequency control supply control supply voltage at IDC control supply control frequency control supply control frequency control supply control supply voltage assirum inrush current pass a papilication of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage maximum inrush current pass at application of control supply voltage as at Co-13 at 250 V rated value at AC-15 at 250		-20 %
AC at 60 H2 **Catal 50 H2 **Catal		20 %
AC at 60 kz control supply voltage frequency colative negative tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply voltage a t DC grated value a t DC grated value positive tolerance of the control supply voltage a t DC grated value positive tolerance of the control supply voltage at CC control supply current in standby mode rated value incurse in bypass operation rated value incurse inc		-20 %
Incidence regardive tolerance of the control supply voltage requency 10 %		20 %
frequency or claim to positive tolorance of the control supply voltage at DC rated value 24 V 25 W 20 W	control supply voltage frequency	50 60 Hz
frequency		-10 %
relative negative tolerance of the control supply voltage at relative negative tolerance of the control supply voltage at Policy positive tolerance of the control supply voltage at Policy positive tolerance of the control supply voltage at Policy positive tolerance of the control supply voltage and the policy positive tolerance of the control supply voltage and the policy positive tolerance of the control supply voltage and the policy positive tolerance and the policy positive tolerance and the policy		10 %
Inclusive negative tolerance of the control supply voltage at DC	control supply voltage	
Teletive positive tolerance of the control supply voltage at DC control supply current in standby mode 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 maximum duration of inrush current peak at application of control supply voltage maximum design of the overvoltage protection design of short-circuit protection for control circuit breaker (cu= 600 A), C6 miniature circuit breaker (cu= 300 A); is not part of together (cu= 500 A), C6 miniature circuit breaker (cu= 300 A); is not part of digital inputs number of digital inputs 1	at DC rated value	24 V
control supply current in standby mode rated value holding current in bypass operation rated value inrush current by closing the bypass contacts maximum 7.6 A inrush current peak at application of control supply voltage maximum design of the overvoltage protection design of short-circuit protection for control circuit design of short-circuit protection for control circuit design of short-circuit protection for control circuit assign of short-circuit protection for control circuit breaker (lou= 800 A), 66 miniature circuit breaker (lou= 300 A); is not part of socope of supply assign of supply		-20 %
holding current in bypass operation rated value inrush current by closing the bypass contacts maximum riush current pack at application of control supply voltage maximum diuration of inrush current peak at application of control supply voltage maximum diuration 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 nputs/ Outputs number of digital inputs number of digital outputs a not parameterizable digital output version number of analog outputs a tat C-15 at 250 V rated value a tat C-13 at 250 V rated value b at AC-15 at 250 V rated value the at AC-15 at 250 V rated value the at C-15 at 250 V rated value the		20 %
Inrush current by closing the bypass contacts maximum 7.6 A	control supply current in standby mode rated value	160 mA
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 Varistor design of short-circuit protection for control circuit design of short-circuit protection for control circuit the puts of digital inputs number of digital inputs number of digital outputs number of analog outputs on tot parameterizable at at Cal 5at 250 V rated value at DC-13 at 24 V rated value beight with the control dimensions mounting position with depth occurrent of the relay outputs 10 mm depth of maximum of maximum of maximum of one with side-by-side mounting of owards outpwards outpwards	holding current in bypass operation rated value	470 mA
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 breaker (Cu= 600 A), C6 miniature circuit breaker (Cu= 300 A); Is not part of scope of supply nputs/ Outputs number of digital inputs in number of digital output in number of digital output version in other parameterizable in at AC-15 at 250 V rated value in at DC-13 at 24 V rated value in at DC-13 at 24 V rated value in at DC-13 at 24 V rated value in at DC-13 at 250 V rated value in at DC-13	inrush current by closing the bypass contacts maximum	7.6 A
design of the overvoltage protection Varistor design of short-circuit protection for control circuit breaker (Icu= 800 A), C6 miniature circuit breaker (Icu= 300 A), Is not part of scope of supply number of digital inputs number of digital outputs 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		3.3 A
design of short-circuit protection for control circuit breaker (lcu= 800 A), 6 A quick-acting fuse (lcu=1 kA), C1 miniature circuit breaker (lcu= 300 A); Is not part of scope of supply number of digital inputs 1 number of digital outputs 3 not parameterizable 2 digital output version 2 number of analog outputs 0 switching capacity current of the relay outputs 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3	and the second s	12.1 ms
breaker (lou= 600 A), C6 miniature circuit breaker (lou= 300 A); Is not part of scope of supply number of digital inputs 1 number of digital outputs 3 not parameterizable 2 digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 0 switching capacity current of the relay outputs 1 at DC-13 at 250 V rated value 1 at DC-13 at 24 V rated value 1 A 1 at DC-13 at 24 V rated value 1 A 1 at DC-13 at 24 V rated value 2 screw fixing mounting position 39 3 mm width 4 cylor management of the relay outputs 4 cylor management of the relay outputs 2 screw fixing 4 value of the relay outputs 4 cylor management of the relay outputs 4 cylor mounting surface +/-90° rotatable, with vertical mounting surface 4 cylor mounting position 4 cylor management of the relay outputs 5 on m vidth 0 mm 6 cylor management of the relay outputs 6 on management of the relay outputs 6 on management of the relay outputs 7 5 mm 6 odownwards 6 odownwards 7 5 mm 6 odownwards 7 5 mm 6 of management of the relay outputs 7 terminals 7	design of the overvoltage protection	Varistor
number of digital inputs 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	design of short-circuit protection for control circuit	breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of
number of digital outputs	nputs/ Outputs	
e not parameterizable 2 digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 0 switching capacity current of the relay outputs e at AC-15 at 250 V rated value 3 A e at DC-13 at 24 V rated value 1 A installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting ending ending ending with side-by-side mounting ending end	number of digital inputs	1
digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 0 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 1 A Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 10.6 kg Connections/ Terminals type of electrical connection • for control circuit screw-type terminals with conductor cross-section = 0.5 mm² maximum 50 mm	number of digital outputs	3
number of analog outputs 0 switching capacity current of the relay outputs 3 A at AC-15 at 250 V rated value 3 A at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting 0 mm e forwards 10 mm e backwards 0 mm e upwards 100 mm e downwards 75 mm e at the side 5 mm weight without packaging 10.6 kg Connections/ Terminals type of electrical connection 6 or control circuit e for control circuit screw-type terminals with of connection bar maximum 45 mm with conductor cross-section = 0.5 mm² maximum 50 m	not parameterizable	2
switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value ***mean at DC-13 at 24 V rated value ***screw fixing **mean at DC-13 at 24 V rated value **screw fixing **mean at DC-13 at 24 V rated value ***mean at DC-13 at 24 V rated value **screw fixing **mean at DC-13 at 24 V rated value **screw fixing **mean at DC-13 at 24 V rated value **screw fixing **mean at DC-13 at 24 V rated value **screw fixing	digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
at AC-15 at 250 V rated value at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface -/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width depth 203 mm required spacing with side-by-side mounting forwards backwards backwards 0 mm backwards 0 mm downwards - 4 the side weight without packaging of or main current circuit 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 50 m 10 m 10 m 10 m 10 crew-type terminals wice length for thermistor connection with conductor cross-section = 0.5 mm² maximum 50 m	number of analog outputs	0
• at DC-13 at 24 V rated value nstallation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back fastening method screw fixing height 393 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • downwards • at the side surjed without packaging connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-20° rotatable, with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-20° tilable to the front and back 100 mm 100 mm 100 mm 100 mm 100 mm 100 kg 100 mm 100 mm 100 mm 100 kg 100 mm 100 mm 100 mm 100 kg 100 mm 100 mm	switching capacity current of the relay outputs	
mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting • forwards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 5000000000000000000000000000000000000	• at AC-15 at 250 V rated value	3 A
mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting 10 mm o forwards 0 mm o backwards 0 mm o downwards 75 mm o at the side 5 mm weight without packaging 10.6 kg connections/ Terminals Terminals type of electrical connection busbar connection of or control circuit busbar connection of or control circuit screw-type terminals width of connection bar maximum 45 mm wire length for thermistor connection 60 m with conductor cross-section = 0.5 mm² maximum 50 m	• at DC-13 at 24 V rated value	1 A
#/- 22.5° tillable to the front and back fastening method screw fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting • forwards • backwards • backwards • upwards • downwards • at the side • 5 mm weight without packaging connections/ Terminals type of electrical connection • for control circuit • for control circuit width of connection bar maximum ### A5 mm #### A5 mm ##### A5 mm ######## A5 mm ##################################	nstallation/ mounting/ dimensions	
height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting 10 mm • forwards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 10.6 kg connections/ Terminals type of electrical connection • for main current circuit busbar connection • for control circuit screw-type terminals width of connection bar maximum 45 mm wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum 50 m	mounting position	
width 210 mm depth 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • downwards • at the side • the side connections/ Terminals type of electrical connection • for control 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 210 mm 203 mm mm mm mm mm 210 mm mm mm mm mm mm mm 100	fastening method	screw fixing
depth 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side vertical connections 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 50 mm 203 mm 10 mm 100 mm 75 mm 75 mm 10.6 kg 10.7 kg 10.8	height	393 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side • at the side 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 mm² maximum 100 mm 75 mm 5 mm 10.6 kg 10.6 kg 10.6 kg 10.6 kg 10.7 kg 10.8 kg 10.9 k	width	210 mm
forwards backwards upwards upwards downwards at the side 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 10 mm 0 mm 0 mm 100 mm	depth	203 mm
 backwards upwards downwards at the side 5 mm weight without packaging 10.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals width of connection bar maximum wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum 50 m 	required spacing with side-by-side mounting	
 upwards downwards at the side 5 mm weight without packaging 10.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals width of connection bar maximum 45 mm wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum 50 m 	• forwards	10 mm
downwards at the side 5 mm weight without packaging 10.6 kg 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 50 m	backwards	0 mm
● at the side 5 mm weight without packaging 10.6 kg Connections/ Terminals type of electrical connection ● for main current circuit busbar connection ● for control circuit screw-type terminals width of connection bar maximum 45 mm wire length for thermistor connection ● with conductor cross-section = 0.5 mm² maximum 50 m	• upwards	100 mm
weight without packaging Connections/ Terminals type of electrical connection • for main current circuit busbar connection • for control circuit screw-type terminals width of connection bar maximum wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m	downwards	75 mm
type of electrical connection • for main current circuit busbar connection • for control circuit screw-type terminals width of connection bar maximum 45 mm wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m	at the side	5 mm
type of electrical connection • for main current circuit • for control circuit • for control circuit width of connection bar maximum 45 mm wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m	weight without packaging	10.6 kg
• for main current circuit • for control circuit • for control circuit	Connections/ Terminals	
● for control circuit width of connection bar maximum wire length for thermistor connection ● with conductor cross-section = 0.5 mm² maximum 50 m	type of electrical connection	
width of connection bar maximum wire length for thermistor connection ● with conductor cross-section = 0.5 mm² maximum 50 m	• for main current circuit	busbar connection
wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m	• for control circuit	screw-type terminals
• with conductor cross-section = 0.5 mm² maximum 50 m	width of connection bar maximum	·
• with conductor cross-section = 0.5 mm² maximum 50 m	wire length for thermistor connection	
• with conductor cross-section = 1.5 mm² maximum 150 m	_	
	 with conductor cross-section = 0.5 mm² maximum 	50 m

with conductor cross section = 2.5 mm² maximum	250 m
with conductor cross-section = 2.5 mm² maximum	250 m
type of connectable conductor cross-sections	0 (50 040 3)
for DIN cable lug for main contacts stranded	2x (50 240 mm²)
for DIN cable lug for main contacts finely stranded	2x (70 240 mm²)
type of connectable conductor cross-sections	4 (0 5 4 0 3) 0 (0 5 0 5 3)
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 mm²), 2x (0.5 1.5 mm²)
for 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 AC maximum	100 m
at the digital inputs at DC maximum	1 000 m
tightening torque	
 for main contacts with screw-type terminals 	14 24 N·m
 for auxiliary and control contacts with screw-type terminals 	0.8 1.2 N·m
tightening torque [lbf·in]	
 for main contacts with screw-type terminals 	124 210 lbf·in
 for auxiliary and control contacts with screw-type terminals 	7 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum	5 000 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
adming operation according to 120 00721	(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
 during transport according to IEC 60721 	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
EMC emitted interference	acc. to IEC 60947-4-2: Class A
Communication/ Protocol	
communication module is supported	
	Yes
communication module is supported	Yes Yes
communication module is supported • PROFINET standard	
communication module is supported • PROFINET standard • EtherNet/IP	Yes
communication module is supported • PROFINET standard • EtherNet/IP • Modbus RTU	Yes Yes
communication module is supported • PROFINET standard • EtherNet/IP • Modbus RTU • Modbus TCP	Yes Yes Yes
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS	Yes Yes Yes
communication module is supported • PROFINET standard • EtherNet/IP • Modbus RTU • Modbus TCP • PROFIBUS UL/CSA ratings	Yes Yes Yes
communication module is supported • PROFINET standard • EtherNet/IP • Modbus RTU • Modbus TCP • PROFIBUS UL/CSA ratings manufacturer's article number	Yes Yes Yes
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of the fuse — usable for Standard Faults up to 575/600 V	Yes Yes Yes Yes Yes
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; lq = 30 kA Type: Class J / L, max. 1200 A; lq = 100 kA Type: Class J / L, max. 1600 A; lq = 30 kA Type: Class J / L, max. 1200 A; lq = 100 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 220/230 V at 50 °C rated value	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at 50 °C rated value	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 460/480 V at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp 350 hp
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 220/230 V at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value	Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1200 A; Iq = 100 kA
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at inside-delta circuit at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value	Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1600 A; Iq = 100 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp 350 hp 750 hp R300-B300
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value contact rating of auxiliary contacts according to UL Safety related data protection class IP on the front according to IEC 60529	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp 350 hp 750 hp R300-B300
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value contact rating of auxiliary contacts according to UL Safety related data protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp 350 hp 750 hp R300-B300 IP00; IP20 with cover finger-safe, for vertical contact from the front with cover
communication module is supported PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number 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 at 460/480 V at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value contact rating of auxiliary contacts according to UL Safety related data protection class IP on the front according to IEC 60529	Yes Yes Yes Yes Yes Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA Type: Class J / L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp 300 hp 350 hp 750 hp R300-B300





Confirmation







Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other



Confirmation

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=3RW5248-6TC04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5248-6TC04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-6TC04

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5248-6TC04&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

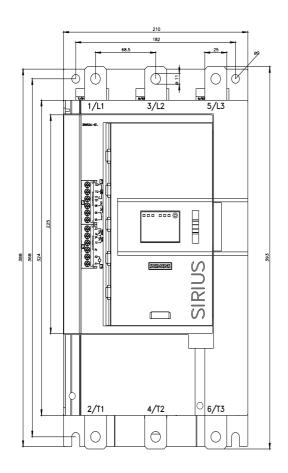
https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-6TC04/char

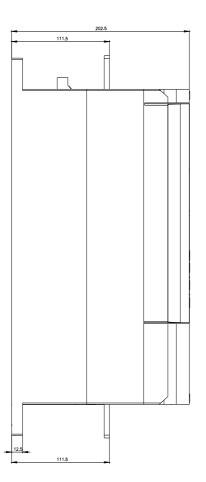
Characteristic: Installation altitude

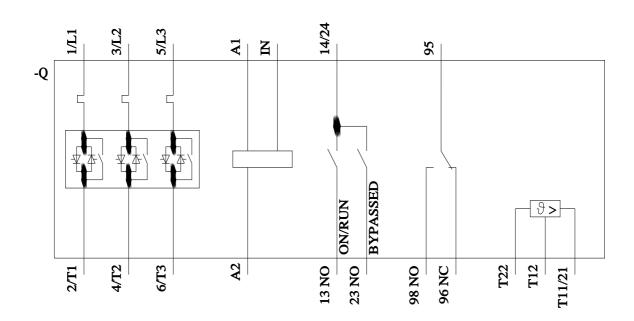
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5248-6TC04&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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