## SIEMENS

## Data sheet

## 3RW5248-6TC14



SIRIUS soft starter 200-480 V 570 A, 110-250 V AC Screw terminals Thermistor input

product brand name	SIRIUS
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW52
manufacturer's article number	
<ul> <li>of standard HMI module usable</li> </ul>	<u>3RW5980-0HS00</u>
<ul> <li>of high feature HMI module usable</li> </ul>	<u>3RW5980-0HF00</u>
<ul> <li>of communication module PROFINET standard usable</li> </ul>	<u>3RW5980-0CS00</u>
<ul> <li>of communication module PROFIBUS usable</li> </ul>	<u>3RW5980-0CP00</u>
<ul> <li>of communication module Modbus TCP usable</li> </ul>	<u>3RW5980-0CT00</u>
<ul> <li>of communication module Modbus RTU usable</li> </ul>	<u>3RW5980-0CR00</u>
<ul> <li>of communication module Ethernet/IP</li> </ul>	<u>3RW5980-0CE00</u>
<ul> <li>of circuit breaker usable at 400 V</li> </ul>	3VA2580-6HN32-0AA0: Type of coordination 1. Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V</li> </ul>	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 400 V at inside-delta circuit</li> </ul>	3VA2510-6HN32-0AA0: Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V at inside-delta circuit</li> </ul>	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of the gG fuse usable at inside-delta circuit up to 500 V</li> </ul>	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	<u>3NE1437-2: Type of coordination 2. Iq = 65 kA</u>
<ul> <li>of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul>	<u>3NE3340-8; Type of coordination 2, Iq = 65 kA</u>
General technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 50 %
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 is supported	
HMI-Standard	Yes
HMI-High Feature	Yes
product feature integrated bypass contact system	Yes

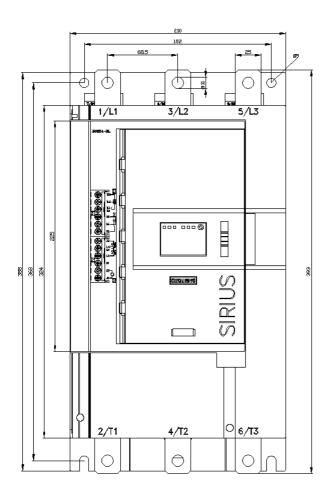
number of controlled phases	3				
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2				
buffering time in the event of power failure					
for main current circuit	100 ms				
for control circuit					
insulation voltage rated value	100 ms				
degree of pollution	600 V 3, acc. to IEC 60947-4-2				
impulse voltage rated value	6 kV				
blocking voltage of the thyristor maximum					
service factor	1 600 V 1				
surge voltage resistance rated value	6 kV				
maximum permissible voltage for safe isolation					
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				
utilization category acc. to IEC 60947-4-2	AC 53a				
reference code acc. to IEC 81346-2	Q				
Substance Prohibitance (Date)	 15.02.2018 00:00:00				
product function					
ramp-up (soft starting)	Yes				
<ul> <li>ramp-up (soft starting)</li> <li>ramp-down (soft stop)</li> </ul>					
Soft Torque	Yes				
adjustable current limitation	Yes				
pump ramp down	Yes				
	Yes				
intrinsic device protection					
<ul> <li>motor overload protection</li> </ul>	Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)				
<ul> <li>evaluation of thermistor motor protection</li> </ul>	Yes; Type A PTC or Klixon / Thermoclick				
<ul> <li>inside-delta circuit</li> </ul>	Yes				
auto-RESET	Yes				
manual RESET	Yes				
remote reset	Yes; By turning off the control supply voltage				
<ul> <li>communication function</li> </ul>	Yes				
<ul> <li>operating measured value display</li> </ul>	Yes; Only in conjunction with special accessories				
<ul> <li>error logbook</li> </ul>	Yes; Only in conjunction with special accessories				
<ul> <li>via software parameterizable</li> </ul>	No				
<ul> <li>via software configurable</li> </ul>	Yes				
PROFlenergy	Yes; in connection with the PROFINET Standard communication module				
firmware update	Yes				
<ul> <li>removable terminal for control circuit</li> </ul>	Yes				
torque control	No				
<ul> <li>analog output</li> </ul>	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					
<ul> <li>at 40 °C rated value</li> </ul>	987 A				
• at 50 °C rated value	873 A				
• at 60 °C rated value	796 A				
operating voltage					
rated value	200 480 V				
<ul> <li>at inside-delta circuit rated value</li> </ul>	200 480 V				
relative negative tolerance of the operating voltage	-15 %				
relative positive tolerance of the operating voltage	10 %				
relative negative tolerance of the operating voltage at	-15 %				
inside-delta circuit					

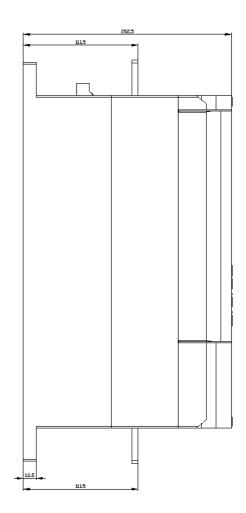
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
<ul> <li>at 230 V at 40 °C rated value</li> </ul>	160 kW
<ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul>	315 kW
<ul> <li>at 400 V at 40 °C rated value</li> </ul>	315 kW
<ul> <li>at 400 V at inside-delta circuit at 40 °C rated value</li> </ul>	560 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 %
adjustable motor current	
<ul> <li>at rotary coding switch on switch position 1</li> </ul>	240 A
<ul> <li>at rotary coding switch on switch position 2</li> </ul>	262 A
<ul> <li>at rotary coding switch on switch position 3</li> </ul>	284 A
<ul> <li>at rotary coding switch on switch position 4</li> </ul>	306 A
<ul> <li>at rotary coding switch on switch position 5</li> </ul>	328 A
<ul> <li>at rotary coding switch on switch position 6</li> </ul>	350 A
<ul> <li>at rotary coding switch on switch position 7</li> </ul>	372 A
<ul> <li>at rotary coding switch on switch position 8</li> </ul>	394 A
<ul> <li>at rotary coding switch on switch position 9</li> </ul>	416 A
<ul> <li>at rotary coding switch on switch position 10</li> </ul>	438 A
<ul> <li>at rotary coding switch on switch position 11</li> </ul>	460 A
<ul> <li>at rotary coding switch on switch position 12</li> </ul>	482 A
<ul> <li>at rotary coding switch on switch position 13</li> </ul>	504 A
<ul> <li>at rotary coding switch on switch position 14</li> </ul>	526 A
<ul> <li>at rotary coding switch on switch position 15</li> </ul>	548 A
<ul> <li>at rotary coding switch on switch position 16</li> </ul>	570 A
• minimum	240 A
adjustable motor current	
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 1</li> </ul>	416 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 2</li> </ul>	454 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 3</li> </ul>	492 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 4</li> </ul>	530 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 5</li> </ul>	568 A
• for inside-delta circuit at rotary coding switch on switch position 6	606 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 7</li> </ul>	644 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 8</li> <li>for inside delta circuit at rotary coding switch on</li> </ul>	682 A 721 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 9</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	721 A 759 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 10</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	797 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 11</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	835 A
<ul> <li>for inside-delta circuit at rotary coding switch on</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	873 A
<ul> <li>for inside-delta circuit at rotary coding switch on</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	911 A
<ul> <li>for inside-delta circuit at rotary coding switch on</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	949 A
<ul> <li>For inside-delta circuit at rotary coding switch on</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	987 A
switch position 16	

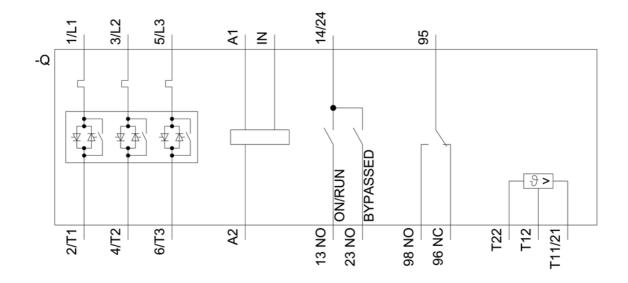
minimum load [%]       15 %; Relative to smallest setable le         power loss [W] for rated value of the current at AC       183 W         • at 40 °C after startup       163 W         • at 40 °C after startup       153 W         power loss [W] at AC at current limitation 350 %       10 241 W         • at 60 °C during startup       850 OW         • at 60 °C during startup       850 OW         • at 60 °C during startup       850 OW         • at 60 °C during startup       7663 W         Control supply voltage of the control supply voltage       AC         control supply voltage of the control supply       10 250 V         • at 50 Hz       110 250 V         • at 60 Hz       110 250 V         • at 60 Hz       10 250 V         • relative negative tolerance of the control s		440.4				
power loss [W] for rated value of the current at AC         183 W           • at 40 °C after startup         183 W           • at 60 °C after startup         163 W           • at 60 °C after startup         163 W           • at 60 °C after startup         163 W           • at 60 °C during startup         10 241 W           • at 60 °C during startup         8 500 W           • at 60 °C during startup         8 500 W           • at 50 °C during startup         7663 W           Control supply voltage of the control supply voltage         AC           control supply voltage at AC         110 250 V           • at 50 °C         110 250 V           • at 60 °Lz         110 250 V           relative negative tolerance of the control supply         -15 %           voltage at AC at 50 Hz         10 %           voltage at AC at 60 Hz         -10 %           relative negative tolerance of the control supply         -15 %           voltage frequency         50 60 Hz           relative positive tolerance of the control supply         -10 %           voltage frequency         50 60 Hz           relative negative tolerance of the control supply         -10 %           voltage frequency         50 60 Hz           relative negati	at inside-delta circuit minimum	416 A				
• at 40 °C after startup       183 W         • at 50 °C after startup       163 W         • at 60 °C after startup       153 W         power loss [W] at AC at current limitation 350 %       0.241 W         • at 60 °C during startup       8 500 W         • at 60 °C during startup       8 500 W         • at 60 °C during startup       7 663 W         Control supply voltage at AC       10 250 V         • at 60 °L 2       10 %         voltage at AC at 60 °L 2       10 %         voltage at AC at 60 °L 2       10 %         voltage fraquency       50 60 °L 2         relative nogazive tolerance of the control supply       10 %         voltage fraquency       50 60 °L 2         relative passive tolerance of the control supply       10 %         voltage fraquency       50 60 °L 2     <		15 %; Relative to smallest settable le				
• el 60 °C after slartup     153 W       power loss [W] at A2 at current limitation 350 %, • at 60 °C during startup     10 241 W       • at 60 °C during startup     8 600 W       • at 60 °C during startup     7 663 W       Control circuit/ Control     To 200 W       • at 60 °C during startup     7 663 W       Control circuit/ Control     Vipe of voltage of the control supply voltage     AC       • et 50 Hz     110 250 V       • at 60 Hz     110 250 V       • et 60 Hz     100 250 V       • et 60 Hz     100 250 V       • relative negative tolerance of the control supply     10 %       voltage at AC at 60 Hz     100 %       relative negative tolerance of the control supply     10 %       voltage at AC at 60 Hz     100 %       relative negative tolerance of the control supply     10 %       voltage at AC at 60 Hz     100 %       relative negative tolerance of the control supply     10 %       voltage frequency     60 60 Hz       relative negative tolerance of the control supply     10 %       voltage frequency     10 %       relative negative tolerance of the control supply     10 %       voltage frequency     10 %       relative negative tolerance of the control supply     10 %       voltage frequency     10 %						
power loss [W] at AC at current limitation 350 %         10 241 W           e: 140 °C during startup         600 W           e: 160 °C during startup         600 W           e: 160 °C during startup         7663 W           Control circuit/ Control         yppe of voltage of the control supply voltage           AC         Control supply voltage at AC           • e: 150 °L 2         110 250 V           • e: 150 °L 2         110 250 V           • e: 150 °L 2         100 %           voltage at AC at 50 Hz         100 250 V           relative negative tolerance of the control supply         -15 %           voltage at CA at 50 Hz         100 %           relative negative tolerance of the control supply         -15 %           voltage at AC at 50 Hz         10 %           relative negative tolerance of the control supply         -15 %           voltage at AC at 60 Hz         -00 %           control supply voltage frequency         50 60 Hz           relative negative tolerance of the control supply         -10 %           voltage requency         -10 %           relative positive tolerance of the control supply         -10 %           control supply voltage frequency         10 %           control supply voltage frequency         10 %		163 W				
e at 40 °C during startup         is 50 °C during startup         is 60 °C during startup         is 60 °C during startup         7663 W          Control circuit/ Control         Type of voltage of the control supply voltage         Control supply voltage at AC         e at 60 Hz         e at	at 60 °C after startup	153 W				
e at 50 °C during startup         at 80 °C during startup         7683 W         7763 W         7770 W         7770 W         7770 W         7770 W         7770 W	power loss [W] at AC at current limitation 350 %					
	<ul> <li>at 40 °C during startup</li> </ul>	10 241 W				
Control circuit/ Control         AC           control supply voltage of the control supply         AC           control supply voltage at AC         110 250 V           • at 50 Hz         110 250 V           • at 50 Hz         110 250 V           relative negative tolerance of the control supply         -15 %           voltage at AC at 50 Hz         10 %           relative negative tolerance of the control supply         -15 %           voltage at AC at 50 Hz         10 %           relative negative tolerance of the control supply         -15 %           voltage at AC at 60 Hz         -15 %           relative negative tolerance of the control supply         -0 %           voltage at AC at 60 Hz         -10 %           relative negative tolerance of the control supply         -0 %           voltage frequency         50 60 Hz           relative negative tolerance of the control supply         -10 %           voltage frequency         -0 %           control supply current in standby mode rated value         30 mA           holding current in bypass operation rated value         100 mA           locked-rotor current at close of bypass contact         2.2 A           maximum         12.2 A           duration of inrush current peak at application of control	<ul> <li>at 50 °C during startup</li> </ul>	8 500 W				
type of voltage of the control supply voltage         AC           control supply voltage at AC         10 250 V           • at 60 Hz         110 250 V           relative negative tolerance of the control supply voltage at AC at 50 Hz         10 %           relative negative tolerance of the control supply voltage at AC at 50 Hz         10 %           relative negative 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 negative tolerance of the control supply voltage at AC at 60 Hz         -15 %           control supply voltage frequency         50 60 Hz           relative negative tolerance of the control supply         10 %           voltage frequency         50 60 Hz           relative negative tolerance of the control supply         10 %           voltage frequency         -10 %           relative negative tolerance of the control supply         10 %           voltage frequency         -10 %           control supply current in standby mode rated value         100 mA           locked-rotor current peak at application of control supply voltage         2.2 A           maximum         4 AgG fuse (Lcu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu=30 A); Is not part of scope of sup	<ul> <li>at 60 °C during startup</li> </ul>	7 663 W				
control supply voltage at AC       110 250 V         • at 60 Hz       110 250 V         relative negative tolerance of the control supply       -15 %         voltage at AC at 50 Hz       10 %.         relative positive tolerance of the control supply       10 %.         voltage at AC at 50 Hz       10 %.         relative negative tolerance of the control supply       10 %.         voltage at AC at 60 Hz       -15 %         relative positive tolerance of the control supply       10 %.         voltage at AC at 60 Hz       -10 %         control supply voltage frequency       50 60 Hz         relative negative tolerance of the control supply       10 %.         voltage frequency       50 60 Hz         relative positive tolerance of the control supply       10 %.         voltage frequency       10 %.         control supply current in standby mode rated value       30 mA         holding current in bypass operation rated value       100 mA         locked-notor current at close of bypass contact       2.2 A         maximum       2.2 ms         design of the overvoltage protection       4 A gG fuse (lou=1 kA), 6 A quick-acting fuse (lou=1 kA), C1 miniature circuit breaker (lou= 600 A), is not part of scope of supply         number of digital inputs       1 <tr< th=""><td>Control circuit/ Control</td><td></td></tr<>	Control circuit/ Control					
• at 50 Hz         110 250 V           • at 60 Hz         110 250 V           relative pagative tolerance of the control supply         -15 %           voltage at AC at 50 Hz         10 %           relative pagative tolerance of the control supply         10 %           voltage at AC at 50 Hz         10 %           relative pagative tolerance of the control supply         -15 %           voltage at AC at 60 Hz         10 %           relative positive tolerance of the control supply         -15 %           control supply voltage frequency         50 60 Hz           relative positive tolerance of the control supply         -10 %           voltage frequency         50 60 Hz           relative positive tolerance of the control supply         -10 %           voltage frequency         control supply current in standby mode rated value           holding current in bypass operation rated value         100 mA           locked-rotor current at close of bypass contact         2.2 A           maximum         2.2 A           duration of inrush current peak at application of control         2.2 ms           supply voltage         4 gG fuse (Icu=1 KA), 6 A quick-acting fuse (Icu=1 KA), C1 miniature circuit breaker (Icu= 600 A), C5 mini	type of voltage of the control supply voltage	AC				
• at 60 Hz     110 250 V       relative negative tolorance of the control supply voltage at AC at 50 Hz     -15 %       relative positive tolorance of the control supply voltage at AC at 50 Hz     10 %       relative negative tolorance of the control supply voltage at AC at 60 Hz     -15 %       relative positive tolerance of the control supply voltage at AC at 60 Hz     -15 %       relative positive tolerance of the control supply voltage at AC at 60 Hz     -0 %       control supply voltage frequency     50 60 Hz       relative positive tolerance of the control supply voltage frequency     -10 %       voltage frequency     50 60 Hz       relative positive tolerance of the control supply     -10 %       voltage frequency     50 60 Hz       relative positive tolerance of the control supply     -10 %       voltage frequency     10 %       control supply current in standby mode rated value     100 mA       locked-rotor current at close of bypass contact     2.2 A       maximum     12.2 A       duration of inush current peak at application of control     2.2 ms       supply voltage     4A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A), Is not parameterizable       1     1       number of digital inputs     1       1     1       number of adigital output	control supply voltage at AC					
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 negative tolerance of the control supply voltage at AC at 60 Hz     -15 %       relative negative tolerance of the control supply voltage at AC at 60 Hz     10 %       relative negative tolerance of the control supply voltage frequency     50 60 Hz       relative negative tolerance of the control supply voltage frequency     10 %       control supply current in standby mode rated value     30 mA       holding current ne bypass operation rated value     100 mA       locked-rotor current at close of bypass contact     2.2 A       maximum     12.2 A       duration of inrush current peak at application of control supply voltage     2.2 ms       design of short-circuit protection for control circuit     4 Ag Guse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A), Is not parameterizable       number of digital inputs     1       number of digital outputs     2       ot digital output version     1       number of analog outputs     2       ot at AC-15 at 250 V rated value     3 A       ot at CC-15 at 250 V rated value     3 A       ot at CC-15 at 250 V rated value	• at 50 Hz	110 250 V				
voltage at ÅC at 50 Hz         10 %           relative positive tolerance of the control supply         10 %           voltage at AC at 50 Hz         10 %           relative negative tolerance of the control supply         -15 %           voltage at AC at 60 Hz         10 %           relative negative tolerance of the control supply         10 %           control supply voltage frequency         50 60 Hz           relative negative tolerance of the control supply         10 %           voltage frequency         50 60 Hz           relative positive tolerance of the control supply         10 %           voltage frequency         50 60 Hz           relative positive tolerance of the control supply         10 %           voltage frequency         20 60 Hz           control supply current in standby mode rated value         30 mA           holding current in bypass operation rated value         30 mA           locked-rotor current at close of bypass contact         2.2 A           maximum         2.2 A           duration of inrush current peak at application of control supply voltage         2.2 ms           design of the overvoltage protection         Varistor           design of short-circuit protection for control circuit         4 Gg fuse (icu=1 kA), 6 A quick-acting fuse (icu=1 kA), C1 miniature circuit breaker	• at 60 Hz	110 250 V				
voltage at AC at 50 Hz         -15 %           relative negative tolerance of the control supply voltage at AC at 60 Hz         -15 %           relative positive tolerance of the control supply voltage at AC at 60 Hz         10 %           control supply voltage frequency         50 60 Hz           relative positive tolerance of the control supply voltage frequency         10 %           relative positive tolerance of the control supply voltage frequency         30 mA           holding current in standby mode rated value         100 mA           locked-rotor current at close of bypass contact maximum         2.2 A           inrush current peak at application of control supply voltage maximum         2.2 M           duration of inrush current peak at application of control supply voltage maximum         2.2 ms           duration of inrush current peak at application of control supply voltage maximum         2.2 ms           duration of inrush current peak at application of control circuit rol part of stort-circuit protection for control circuit circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply           Inputs/ Outputs         1           number of digital inputs         1           number of digital outputs         3           e not parameterizable         2           digital output version         2 normally-open contacts (NO) / 1 changeover contact (CO)		-15 %				
voltage at ÅC at 60 Hz       10 %         relative positive tolerance of the control supply voltage At AC at 60 Hz       10 %         control supply voltage frequency       50 60 Hz         relative negative tolerance of the control supply voltage frequency       10 %         control supply current in standby mode rated value       10 %         holding current in bypass operation rated value       10 mA         locked-rotor current at close of bypass contact maximum       2.2 A         inrush current peak at application of control supply voltage maximum       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         number of digital inputs       1         number of digital outputs       3         e not parameterizable       2         digital output version       2 normally-open contacts (NO) / 1 changeover contact (CO)         number of analog outputs       0         e at DC-13 at 24 V rated value       3 A         e at DC-13 at 24 V rated value       1 A		10 %				
voltage at AC at 60 Hz         control supply voltage frequency       50 60 Hz         relative negative tolerance of the control supply       -10 %         voltage frequency       10 %         control supply current in standby mode rated value       30 mA         holding current in bypass operation rated value       100 mA         locked-rotor current at close of bypass contact       2.2 A         maximum       12.2 A         duration of inrush current peak at application of control supply voltage       12.2 A         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (lcu=1 kA), 6 A quick-acting fuse (lcu=1 kA), C1 miniature circuit breaker (lcu= 600 A), C6 miniature circuit breaker (lcu= 300 A), Is not part of scope of supply         number of digital inputs       1         number of digital inputs       1         number of digital inputs       1         number of digital outputs       2         e not parameterizable       2         digital output version       2 normally-open contacts (NO) / 1 changeover contact (CO)         number of analog outputs       3A         e at AC-15 at 250 V rated value       3A         e at DC-13 at 24 V rated value       3A		-15 %				
relative negative tolerance of the control supply       -10 %         relative positive tolerance of the control supply       10 %         control supply current in standby mode rated value       30 mA         holding current in bypass operation rated value       100 mA         locked-rotor current at close of bypass contact       2.2 A         maximum       12.2 A         inrush current peak at application of control supply voltage       2.2 ms         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         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         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A		10 %				
voltage frequency       11 %         relative positive tolerance of the control supply       10 %         control supply current in standby mode rated value       30 mA         holding current in bypass operation rated value       100 mA         locked-rotor current at close of bypass contact       2.2 A         maximum       12.2 A         duration of inrush current peak at application of control supply voltage       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         number of digital inputs       1         number of digital inputs       1         number of digital outputs       3         • not parameterizable       2         2       10         switching capacity current of the relay outputs       3A         • at AC-15 at 250 V rated value       3A         • at DC-13 at 24 V rated value       1A	control supply voltage frequency	50 60 Hz				
voltage frequency       30 mA         holding current in standby mode rated value       30 mA         holding current in bypass operation rated value       100 mA         locked-rotor current at close of bypass contact       2.2 A         maximum       12.2 A         duration of inrush current peak at application of control supply voltage       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (lcu=1 kA), 6 A quick-acting fuse (lcu=1 kA), C1 miniature circuit breaker (lcu= 600 A), C6 miniature circuit breaker (lcu=300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A		-10 %				
holding current in bypass operation rated value       100 mA         locked-rotor current at close of bypass contact       2.2 A         maximum       12.2 A         inrush current peak at application of control supply voltage       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       Varistor         design of short-circuit protection for control circuit       Varistor         number of digital inputs       1         number of digital inputs       1         number of digital outputs       3         • not parameterizable       2         digital output version       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		10 %				
locked-rotor current at close of bypass contact maximum       2.2 A         linrush current peak at application of control supply voltage maximum       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       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       1 A	control supply current in standby mode rated value	30 mA				
maximum       12.2 A         inrush current peak at application of control supply voltage maximum       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	holding current in bypass operation rated value	100 mA				
inrush current peak at application of control supply voltage       12.2 A         duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (lcu=1 kA), 6 A quick-acting fuse (lcu=1 kA), C1 miniature circuit breaker (lcu= 600 A), C6 miniature circuit breaker (lcu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	locked-rotor current at close of bypass contact	2.2 A				
maximum       duration of inrush current peak at application of control supply voltage       2.2 ms         design of the overvoltage protection       Varistor         design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at DC-13 at 24 V rated value       1 A         Installation/ mounting/ dimensions       1 A						
supply voltage       variator         design of the overvoltage protection       Variator         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), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	maximum					
design of short-circuit protection for control circuit       4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs       1         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	supply voltage					
circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply         Inputs/ Outputs         number of digital inputs       1         number of inputs for thermistor connection       1; Type A PTC or Klixon / Thermoclick         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A						
number of digital inputs       1         number of inputs for thermistor connection       1; Type A PTC or Klixon / Thermoclick         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	design of short-circuit protection for control circuit	circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is				
number of digital inputs       1         number of inputs for thermistor connection       1; Type A PTC or Klixon / Thermoclick         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       3 A         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A	Inputs/ Outputs					
number of inputs for thermistor connection1; Type A PTC or Klixon / Thermoclicknumber of digital outputs3• not parameterizable2digital output version2 normally-open contacts (NO) / 1 changeover contact (CO)number of analog outputs0switching capacity current of the relay outputs3 A• at AC-15 at 250 V rated value3 A• at DC-13 at 24 V rated value1 AInstallation/ mounting/ dimensions		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       0         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A         Installation/ mounting/ dimensions       1	number of inputs for thermistor connection	1; Type A PTC or Klixon / Thermoclick				
• 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       0         • at AC-15 at 250 V rated value       3 A         • at DC-13 at 24 V rated value       1 A         Installation/ mounting/ dimensions						
digital output version       2 normally-open contacts (NO) / 1 changeover contact (CO)         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       1	<b>-</b> .					
number of analog outputs     0       switching capacity current of the relay outputs     0       • at AC-15 at 250 V rated value     3 A       • at DC-13 at 24 V rated value     1 A						
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						
at AC-15 at 250 V rated value     at DC-13 at 24 V rated value     1 A  Installation/ mounting/ dimensions						
at DC-13 at 24 V rated value     1 A Installation/ mounting/ dimensions		3 A				
Installation/ mounting/ dimensions						
	mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting				
surface +/- 22.5° tiltable to the front and back		surface +/- 22.5° tiltable to the front and back				
fastening method screw fixing						
height 393 mm						
width 210 mm						
depth 203 mm		203 mm				
required spacing with side-by-side mounting						
• forwards 10 mm						
• backwards 0 mm						
• upwards 100 mm	<ul> <li>upwards</li> </ul>	100 mm				

• at the side 5	75 mm 5 mm				
weight without packaging 1	10.6 kg				
Connections/ Terminals					
type of electrical connection					
	busbar connection				
	screw-type terminals				
	45 mm				
wire length for thermistor connection					
•	50 m				
• with conductor cross-section = 1.5 mm <sup>2</sup> maximum 1	150 m				
• with conductor cross-section = 2.5 mm <sup>2</sup> maximum 2	250 m				
type of connectable conductor cross-sections					
	2x (50 240 mm²)				
-	2x (70 240 mm <sup>2</sup> )				
type of connectable conductor cross-sections					
	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)				
	1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )				
processing					
at AWG cables for control circuit solid	1x (20 12), 2x (20 14)				
wire length					
between soft starter and motor maximum	300 m				
• at the digital inputs at AC maximum 1	100 m				
tightening torque					
• for main contacts with screw-type terminals 1	14 24 N·m				
5 51	0.8 1.2 N·m				
terminals					
tightening torque [lbf·in]					
	124 210 lbf·in				
5 51	7 10.3 lbf·in				
terminals Ambient conditions					
	5 000 m; Derating as of 1000 m, see catalog				
ambient temperature	05				
• .	25 +60 °C; Please observe derating at temperatures of 40 °C or above				
	40 +80 °C				
environmental category					
	3K6 (no ice formation, only occasional condensation), 3C3 (no salt				
	nist), 3S2 (sand must not get into the devices), 3M6				
	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must				
	not get inside the devices), 1M4				
during transport acc. to IEC 60721	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)				
EMC emitted interference a	acc. to IEC 60947-4-2: Class A				
Communication/ Protocol					
communication module is supported					
PROFINET standard	Yes				
• EtherNet/IP	Yes				
Modbus RTU	Yes				
Modbus TCP     Y	Yes				
• PROFIBUS	Yes				
UL/CSA ratings					
manufacturer's article number					
• of the fuse					
	Гуре: Class J / L, max. 1600 А; Iq = 30 кА				
	Гуре: Class J / L, max. 1200 А; Iq = 100 кА				
according to UL					

	High Faults at inside-delta circuit u according to UL	ір Туре: С	Type: Class J / L, max. 1200 A; Iq = 100 kA				
operating power [hp	o] for 3-phase motors						
<ul> <li>at 200/208 V at</li> </ul>	t 50 °C rated value	150 hp					
• at 220/230 V at	t 50 °C rated value	200 hp					
● at 460/480 V at	t 50 °C rated value	400 hp					
	t inside-delta circuit at 50 °C rated						
value			300 hp				
● at 220/230 V at value	t inside-delta circuit at 50 °C rated		350 hp				
● at 460/480 V at value	t inside-delta circuit at 50 °C rated	750 hp					
contact rating of au	xiliary contacts according to UL	R300-E	300				
Safety related data							
-	on the front acc. to IEC 60529	IP00. IE	P20 with cover				
•				ntaat from the front wit	hoovor		
	the front acc. to IEC 60529			ntact from the front wit	II COVEI		
electromagnetic cor		in acco	rdance with IEC 60	)947-4-2			
Certificates/ approval	ls						
Conorol Droduct Ar				FMC	Declaration of		
General Product Ap	oproval			EMC	Conformity		
		$\sim$		<b>^</b>			
(SD	$(\mathfrak{m})$	h)	LUL	le la companya de la comp	CE		
		ש	ЕПГ	Ś			
CSA	ccc i	JL		RCM	EG-Konf.		
Test Certificates	Marine / Shipping						
Type Test Certific-	And the second s	No.		A CONTRACTOR	JAND VOL		
ates/Test Report		<b>注目</b>	Lloyd's	(22)			
					DNV-GL		
	ABS BUR	EAU	LRS	PRS	DEVOLUTION		
	VER	ITAS					
other							
<b>Confirmation</b>							
Further information							
Information- and Do	ownloadcenter (Catalogs, Brochu	ires,)					
https://www.siemens.							
Industry Mall (Online ordering system)							
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5248-6TC14							
Cax online generator							
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5248-6TC14							
Service&Support (Manuals, Certificates, Characteristics, FAQs,)							
https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-6TC14							
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)							
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5248-6TC14⟨=en							
Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current							
https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-6TC14/char							
Characteristic: Installation altitude							
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5248-6TC14&objecttype=14&gridview=view1							
Simulation Tool for Soft Starters (STS)							
https://support.industry.siemens.com/cs/ww/en/view/101494917							







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