# **SIEMENS**

3RW5234-2TC14 **Data sheet** 



SIRIUS soft starter 200-480 V 113 A, 110-250 V AC spring-type 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>	3RW5980-0HS00
<ul> <li>of high feature HMI module usable</li> </ul>	3RW5980-0HF00
<ul> <li>of communication module PROFINET standard usable</li> </ul>	3RW5980-0CS00
<ul> <li>of communication module PROFIBUS usable</li> </ul>	3RW5980-0CP00
<ul> <li>of communication module Modbus TCP usable</li> </ul>	3RW5980-0CT00
<ul> <li>of communication module Modbus RTU usable</li> </ul>	3RW5980-0CR00
<ul> <li>of communication module Ethernet/IP</li> </ul>	3RW5980-0CE00
<ul> <li>of circuit breaker usable at 400 V</li> </ul>	3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 400 V at inside-delta circuit</li> </ul>	3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	3NA3244-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of the gG fuse usable at inside-delta circuit up to 500 V</li> </ul>	3NA3244-6; 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>	3NE1225-0; Type of coordination 2, Iq = 65 kA
<ul> <li>of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NE3332-0B; Type of coordination 2, Iq = 65 kA
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
<ul> <li>CSA approval</li> </ul>	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 control circuit   100 ms   100 m	a for main ourrent aircuit	100 ms
Insulation voltage rated value  degree of politution  impulse voltage rated value  blocking voltage of the thyristor maximum  service factor  surge voltage resistance rated value  blocking voltage resistance rated value  blocking voltage for safe isolation  • between main and auxiliary circuit  * between main and auxiliary circuit  * bhock resistance  vibration resistance  visration to feet. visration visration resistance  visration resistance  visration vibration resistance  visration to feet. visration vibration resistance  visration resistance  visration vibration resistance  visration vibration resistance  visration resistance  visration to feet. visration vibration resistance  visration resistance  visration vibration resistance  visration resistance  visration vibration resistance  visration resistance  visration vibration resistance  visra	• for main current circuit	
degree of pollution   3, acc. to IEC 60947-4-2		
Impulse voltage rated value		
blocking voltage of the thyristor maximum service factor surge voltage resistance rated value maximum permissible voltage for safe isolation between main and audiliary circuit shock resistance 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting vibration resistance 15 m 16 e ltz; 2g to 500 Hz  4 C 53  C Substance Profibitance (Date) reference code acc, to IEC 81346-2 Q Substance Profibitance (Date) remp-que (soft storting) e namp-down (soft stop) e adjustable current limitation e pump ramp down e intrinsic device protection e notor overload protection e valuation of thermistor motor protection e valuation of thermistor motor protection e valuation of thermistor motor protection e inside-delta circuit e remote reset e communication function e operating measured value display e removable terminal for control circuit e torque control e and 0°C rated value e at 10°C rated value e at		
surge voltage resistance rated value maximum permissible voltage for safe isolation		
surge voltage resistance rated value maximum permissible voltage for safe isolation		
**between main and auxiliary circuit*  **botween main and auxiliary circuit*  **shock resistance**  **shock resistance**  **wibration starting**  **west part in motor protection (thermistor motor protection and electronic motor overload protection)  **west part in motor protection (thermistor motor protection and electronic motor overload protection)  **west part in motor protection (thermistor motor protection and electronic motor overload protection)  **west part in motor protection (thermistor motor protection and electronic motor overload protection)  **west part in motor protection starting in motor protectio		
• between main and auxiliary circuit   600 V   5 g / 11 ms, from 12 g / 11 ms with potential contact lifting   15 g / 11 ms, from 12 g / 11 ms with potential contact lifting   15 mm to 6 Hz; 2g to 500 Hz   15 mm t		6 KV
shock resistance   15 g / 11 ms, from 12 g / 11 ms with potential contact lifting		2021/
vibration resistance         15 mm to 6 Hz; 2g to 500 Hz           utilization category acc. to IEC 60947-4-2         AC 5sa           reference code acc. to IEC 81346-2         Q           Substance Prohibitance (Date)         15 02.2018 00:00:00           product function         15 02.2018 00:00:00           e ramp-up (soft starting)         Yes           e Soft Torque         Yes           e Soft Torque         Yes           e Judy and protection         Yes           e intrinsic device protection         Yes           e motor overload protection         Yes           e motor overload protection         Yes           e motor overload protection         Yes           e waluation of thermistor motor protection         Yes           e valuation of thermistor motor protection         Yes           e waluation of thermistor motor protection         Yes           e valuation of thermistor motor protection         Yes           e remote reset         Yes         Yes           o communication function         Yes           e remote reset         Yes         Yes           o communication function         Yes         Yes           e remote place and the properation of the protection in the protection with special accessories         Yes </th <th></th> <th></th>		
reference code acc. to IEC 80347-4-2 reference code acc. to IEC 81348-2 Q Substance Prohibitiance (Date) product function  • ramp-ye (soft starting) • ramp-down (soft stop) • Soft Torque • edijustable current limitation • pump ramp down • Intrinsic device protection • evaluation of thermister motor protection • motor overload protection • evaluation of thermister motor protection • inside-delta circuit • auto-RESET • manual RESET • remote reset • remote reset • remote reset • ves; Py turning off the control supply voltage • error logbook • via software parameterizable • via software parameterizable • removable terminal for control circuit • organization of turning to the control circuit • organization turnet • at 40 °C rated value • at 60 °C rated		
Internation   Control		
Substance Prohibitance (Date) product function  * ramp-up (soft starting) * ramp-down (soft stop) * Soft Torque * Soft Torque * Jess Soft Torque *		
Product function   Framp-up (soft storp)   Yes   Framp-up (soft		<del>-</del> - <sup>1</sup> - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
• ramp-up (soft starting) • ramp-down (soft stop) • ramp-down (soft stop) • Soft Torque • adjustable current limitation • pump ramp down • initriatios device protection • motor overload protection • evaluation of thermistor motor protection • initriatios device protection • evaluation of thermistor motor protection • initriatios device protection • evaluation of thermistor motor protection • initriatios device protection • evaluation of thermistor motor protection • evaluation of thermistor motor protection • initriatios device protection • evaluation of thermistor motor protection • revealuation of thermistor motor protection • revealuation of thermistor motor protection • revealuation of thermistor motor protection and electronic motor overload protection) • revealuation of thermistor motor protection and electronic motor overload protection) • resolution of thermistor motor protection and electronic  • remote reset • remote reset • reset yes, and protection with special accessories • resolvance parameterizable • removable terminal for control circuit • reset yes, and protection with the PROFINET Standard communication module • removable terminal for control circuit • reset yes, and protection • reset yes, and pr		15.02.2018 00:00:00
* ramp-down (soft stop)     * Soft Torque     * adjustable current limitation     * pump ramp down     * intrinsic device protection     * motor overload protection     * evaluation of thermistor motor protection     * initions device protection     * evaluation of thermistor motor protection     * initions device protection     * evaluation of thermistor motor protection     * iniside-delta circuit     * auto-RESET     * remote reset     * auto-RESET     * remote reset     * communication function     * operating measured value display     * error logbook     * via software parameterizable     * via software parameterizable     * via software parameterizable     * via software update     * removable terminal for control circuit     * torque control     * arroy control     * arroy control     * of crated value     * at 40 °C rated value     * at 50 °C rated value     * at 60 °C rated value	•	
Soft Torque     adjustable current limitation     pump ramp down     intrinsic device protection     woltor overload protection     ves:     motor overload protection     ves: Full motor protection (thermistor motor protection and electronic motor overload protection)      evaluation of thermistor motor protection     inside-delta circuit     auto-RESET     ves     auto-RESET     ves     remoula RESET     ves     communication function     operating measured value display     error logbook     via software parameterizable     via software parameterizable     via software configurable     ves     PROFlenergy     ves     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated valu		
adjustable current limitation pump ramp down pimp ramp ramp ramp down pimp ramp ramp ramp ramp down pimp ramp ramp ramp ramp ramp ramp ramp ra		
pump ramp down intrinsic device protection motor overload protection protor overload protection evaluation of thermistor motor protection protor overload protection evaluation of thermistor motor protection evaluation evaluation of thermistor motor protection evaluation	·	Yes
intrinsic device protection motor overload protection motor overload protection  evaluation of thermistor motor protection inside-delta circuit auto-RESET yes manual RESET yes manual RESET remote reset yes; By turning off the control supply voltage communication function yes; Only in conjunction with special accessories yes; Only in conjunction with the PROFINET Standard communication module in firmware update removable terminal for control circuit yes removable terminal for control circuit yes removable terminal for control circuit yes removable terminal for control circuit of que control analog output  Power Electronics  operational current at 40 °C rated value at 60	<ul> <li>adjustable current limitation</li> </ul>	Yes
motor overload protection     evaluation of thermistor motor protection     inside-delta circuit     auto-RESET     yes     manual RESET     remote reset     communication function     operating measured value display     error logbook     via software parameterizable     via software parameterizable     via software configurable     removable terminal for control circuit     torque control     analog output     Power Electronics  poparating current     at 40 °C rated value     at 60 °C	<ul><li>pump ramp down</li></ul>	Yes
e evaluation of thermistor motor protection inside-delta circuit auto-RESET auto-RESET manual RESET remote reset communication function eperating measured value display via software parameterizable via software parameterizable via software configurable removable terminal for control circuit et removable terminal for control circuit at 40 °C rated value at 60 °C ra	<ul> <li>intrinsic device protection</li> </ul>	Yes
inside-delta circuit auto-RESET manual RESET manual RESET remote reset communication function operating measured value display error logbook via software parameterizable via software configurable removable terminal for control circuit removable terminal for control circuit value at 40 °C rated value at 60 °C rated value a	motor overload protection	
auto-RESET  manual RESET  remote reset  remote reset  communication function  operating measured value display  vias oftware parameterizable  via software configurable  remote remote remote remote value display  vias oftware configurable  via software configurable  removable terminal for control circuit  removable terminal for control circuit  value  removable terminal for control circuit  relative negative tolerance of the operating voltage at inside-delta circuit  relative negative tolerance of the operating voltage at inside-delta circuit  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit	<ul> <li>evaluation of thermistor motor protection</li> </ul>	
• manual RESET • remote reset • communication function • operating measured value display • error logbook • via software parameterizable • via software configurable • removable terminal for control circuit • torque control • analog output  Power Electronics  operational current • at 40 °C rated value • at 60 °C rated va	<ul> <li>inside-delta circuit</li> </ul>	Yes
remote reset     communication function     operating measured value display     error logbook     via software parameterizable     via software configurable     via software configurable     via software update     eremovable terminal for control circuit     enalog output     volue at 40 °C rated value     at 60 °	• auto-RESET	Yes
communication function     operating measured value display     error logbook     via software parameterizable     via software configurable     via software configurable     via software update     FROFlenergy     ves; in connection with the PROFINET Standard communication module     firmware update     removable terminal for control circuit     ves     removable terminal for control circuit     ves     verenovable terminal for control circuit     ves	<ul><li>manual RESET</li></ul>	Yes
operating measured value display     error logbook     via software parameterizable     via software configurable     via software configurable     PROFlenergy     Ves; in connection with special accessories     Ves     PROFlenergy     Ves; in connection with the PROFINET Standard communication module     firmware update     removable terminal for control circuit     ves     verenouse terminal for control circuit     vorque control     analog output     No  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C ra	<ul> <li>remote reset</li> </ul>	Yes; By turning off the control supply voltage
error logbook     ivia software parameterizable     via software configurable     PROFlenergy     PROFlenergy     PROFlenergy     immurate update     immurate update update     immurate update     immurate update     immurate update updat	<ul> <li>communication function</li> </ul>	Yes
via software parameterizable via software configurable via software configurable PROFlenergy Yes; in connection with the PROFINET Standard communication module firmware update removable terminal for control circuit ves removable terminal for control No analog output No  Power Electronics  operational current at 40 °C rated value at 50 °C rated value 39 A  operational current at inside-delta circuit at 40 °C rated value 113 A 38 A 98 A  operational current at inside-delta circuit at 40 °C rated value 196 A 175 A 164 O°C rated value 154 A  operating voltage rated value at 50 °C rated value 154 A  operating voltage rated value 155 °C rated value 164 A  operating voltage rated value 175 A 184 A  operating voltage 185 °C rated value 196 A 185 °C rated value 197 °C rated value 198 °C rat	<ul> <li>operating measured value display</li> </ul>	Yes; Only in conjunction with special accessories
via software configurable     PROFlenergy     Yes; in connection with the PROFINET Standard communication module     Yes     removable terminal for control circuit     Yes     torque control     analog output     No  Power Electronics  operational current     at 40 °C rated value     at 60 °C rated value     at 60 °C rated value     at 50 °C rated value     at 50 °C rated value     at 60 °C rated value     at 155 «     at 60 °C rated value     at 155 «     at 60 °C rated value     at 155 «     at 150 °C rated value     a	• error logbook	Yes; Only in conjunction with special accessories
PROFlenergy Yes; in connection with the PROFINET Standard communication module Yes removable terminal for control circuit Yes torque control analog output No  Power Electronics  operational current at 40 °C rated value at 60 °C rated value at 60 °C rated value  at 40 °C rated value  101 A  at 40 °C rated value  40 °C rated value 50 °C rated value 60 °C rated value 60 °C rated value 61 °	<ul> <li>via software parameterizable</li> </ul>	No
PROFlenergy Yes; in connection with the PROFINET Standard communication module Yes removable terminal for control circuit Yes torque control analog output No  Power Electronics  operational current at 40 °C rated value at 60 °C rated value at 60 °C rated value  at 40 °C rated value  101 A  at 40 °C rated value  40 °C rated value 50 °C rated value 60 °C rated value 60 °C rated value 61 °	<ul> <li>via software configurable</li> </ul>	Yes
removable terminal for control circuit     torque control     nalog output     No  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at 40 °C rated value     at 60 °C rated	_	
torque control     analog output     No  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at 60 °C rated value     at 40 °C rated value     at 60 °C rated value     at 75 A     at 60 °C rated value	• firmware update	Yes
analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at 60 °C rated value     at 60 °C rated value     at 40 °C rated value     at 60 °C rated value     at 50 °C rated value     at 60 °C rated value     at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit	• removable terminal for control circuit	Yes
power Electronics  operational current  • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value  • at 40 °C rated value  • at 50 °C rated value • at 60 °C rated value  • at 60 °C rated value  • at 60 °C rated value  • rated value • rated value • at inside-delta circuit rated value  • at inside-delta circuit rated value  relative positive tolerance of the operating voltage  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %	• torque control	No
operational current  • at 40 °C rated value  • at 50 °C rated value  • at 60 °C rated value  • at 60 °C rated value  • at 40 °C rated value  • at 50 °C rated value  • at 60 °C rated value  • at inside-delta circuit rated value  • at inside-delta circuit rated value  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %	analog output	No
<ul> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> <li>89 A</li> </ul> Operational current at inside-delta circuit <ul> <li>at 40 °C rated value</li> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> <li>at inside-delta circuit rated value</li> <li>at inside-delta circuit</li> <li>at inside-delta circuit</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 480 V</li> <li>at 15 %</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 10 %</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> <li>at 30 A</li> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 30 A</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 40 O</li> </ul> relative positive tolerance of the operating voltage at inside-delta circuit <ul> <li>at 40 O</li> <li></li></ul>	Power Electronics	
at 50 °C rated value at 60 °C rated value  operational current at inside-delta circuit  at 40 °C rated value at 50 °C rated value  at 50 °C rated value  at 60 °C rated value  at inside-delta circuit rated value  relative negative tolerance of the operating voltage  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  at 101 A  89 A  196 A  175 A  200 480 V  200 480 V  -15 %  relative negative tolerance of the operating voltage  10 %  10 %	operational current	
at 60 °C rated value      operational current at inside-delta circuit         • at 40 °C rated value         • at 50 °C rated value         • at 60 °C rated value         • rated value         • rated value         • rated value         • at inside-delta circuit rated value  relative negative tolerance of the operating voltage  relative negative tolerance of the operating voltage  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %	• at 40 °C rated value	113 A
operational current at inside-delta circuit  • at 40 °C rated value  • at 50 °C rated value  • at 60 °C rated value  • rated value  • rated value  • at inside-delta circuit rated value  relative negative tolerance of the operating voltage  relative negative tolerance of the operating voltage  relative negative tolerance of the operating voltage  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit	• at 50 °C rated value	101 A
<ul> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> <li>154 A</li> </ul> Operating voltage <ul> <li>rated value</li> <li>at inside-delta circuit rated value</li> <li>relative negative tolerance of the operating voltage</li> <li>relative negative tolerance of the operating voltage</li> <li>relative negative tolerance of the operating voltage at inside-delta circuit</li> <li>relative positive tolerance of the operating voltage at inside-delta circuit</li> </ul> 10 %<	• at 60 °C rated value	89 A
<ul> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> <li>154 A</li> </ul> Operating voltage <ul> <li>rated value</li> <li>at inside-delta circuit rated value</li> <li>relative negative tolerance of the operating voltage</li> <li>relative negative tolerance of the operating voltage</li> <li>relative negative tolerance of the operating voltage at inside-delta circuit</li> <li>relative positive tolerance of the operating voltage at inside-delta circuit</li> </ul> 10 %<	operational current at inside-delta circuit	
<ul> <li>at 60 °C rated value</li> <li>operating voltage         <ul> <li>rated value</li> <li>at inside-delta circuit rated value</li> </ul> </li> <li>relative negative tolerance of the operating voltage         relative negative tolerance of the operating voltage         relative negative tolerance of the operating voltage</li></ul>	•	196 A
<ul> <li>at 60 °C rated value</li> <li>operating voltage         <ul> <li>rated value</li> <li>at inside-delta circuit rated value</li> </ul> </li> <li>relative negative tolerance of the operating voltage         relative negative tolerance of the operating voltage         relative negative tolerance of the operating voltage</li></ul>	• at 50 °C rated value	175 A
operating voltage  • rated value  • at inside-delta circuit rated value  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %		
<ul> <li>rated value</li> <li>at inside-delta circuit rated value</li> <li>200 480 V</li> <li>relative negative tolerance of the operating voltage</li> <li>relative positive tolerance of the operating voltage</li> <li>relative negative tolerance of the operating voltage at inside-delta circuit</li> <li>relative positive tolerance of the operating voltage at inside-delta circuit</li> <li>10 %</li> </ul>		
● at inside-delta circuit rated value  relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %  10 %		200 480 V
relative negative tolerance of the operating voltage  relative positive tolerance of the operating voltage  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %  10 %		
relative positive tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit  10 % 10 %		
relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  -15 %  10 %		
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  10 %		
inside-delta circuit		
operating power for 3-phase motors		10 %
	operating power for 3-phase motors	

<ul> <li>at 230 V at 40 °C rated value</li> </ul>	30 kW
<ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul>	55 kW
<ul> <li>at 400 V at 40 °C rated value</li> </ul>	55 kW
at 400 V at inside-delta circuit at 40 °C rated value	110 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>	53 A
<ul> <li>at rotary coding switch on switch position 2</li> </ul>	57 A
<ul> <li>at rotary coding switch on switch position 3</li> </ul>	61 A
<ul> <li>at rotary coding switch on switch position 4</li> </ul>	65 A
at rotary coding switch on switch position 5	69 A
<ul> <li>at rotary coding switch on switch position 6</li> </ul>	73 A
<ul> <li>at rotary coding switch on switch position 7</li> </ul>	77 A
<ul> <li>at rotary coding switch on switch position 8</li> </ul>	81 A
at rotary coding switch on switch position 9	85 A
at rotary coding switch on switch position 10	89 A
at rotary coding switch on switch position 11	93 A
at rotary coding switch on switch position 12	97 A
at rotary coding switch on switch position 12     at rotary coding switch on switch position 13	101 A
at rotary coding switch on switch position 14     at rotary coding switch on switch position 14	105 A
at rotary coding switch on switch position 15	109 A
at rotary coding switch on switch position 16     at rotary coding switch on switch position 16	113 A
minimum	53 A
adjustable motor current	33 A
•	91.8 A
for inside-delta circuit at rotary coding switch on switch position 1	
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 2</li> </ul>	98.7 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 3</li> </ul>	106 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 4</li> </ul>	113 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 5</li> </ul>	120 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 6</li> </ul>	126 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 7</li> </ul>	133 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 8</li> </ul>	140 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 9</li> </ul>	147 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 10</li> </ul>	154 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 11</li> </ul>	161 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 12</li> </ul>	168 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 13</li> </ul>	175 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 14</li> </ul>	182 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 15</li> </ul>	189 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 16</li> </ul>	196 A
at inside-delta circuit minimum	91.8 A
minimum load [%]	15 %; Relative to smallest settable le
power loss [W] for rated value of the current at AC	

<ul> <li>at 40 °C after startup</li> </ul>	46 W
<ul> <li>at 50 °C after startup</li> </ul>	42 W
at 60 °C after startup	39 W
power loss [W] at AC at current limitation 350 %	
<ul> <li>at 40 °C during startup</li> </ul>	1 512 W
<ul> <li>at 50 °C during startup</li> </ul>	1 291 W
<ul> <li>at 60 °C during startup</li> </ul>	1 086 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
● at 50 Hz	110 250 V
● at 60 Hz	110 250 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
control supply voltage frequency	50 60 Hz
relative negative tolerance of the control supply voltage frequency	-10 %
relative positive tolerance of the control supply voltage frequency	10 %
control supply current in standby mode rated value	30 mA
holding current in bypass operation rated value	75 mA
locked-rotor current at close of bypass contact maximum	2.5 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	
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	
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	306 mm
width	185 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	6.6 kg
weight without packaging	0.0 Ng

Connections/ Terminals	
type of electrical connection	
for main current circuit	busbar connection
for control circuit	spring-loaded terminals
width of connection bar maximum	25 mm
wire length for thermistor connection	20 11111
with conductor cross-section = 0.5 mm² maximum	50 m
with conductor cross-section = 0.5 mm² maximum     with conductor cross-section = 1.5 mm² maximum	150 m
	250 m
• with conductor cross-section = 2.5 mm² maximum	250 111
type of connectable conductor cross-sections	0(40052)
for DIN cable lug for main contacts stranded	2x (16 95 mm²)
for DIN cable lug for main contacts finely stranded	2x (25 120 mm²)
type of connectable conductor cross-sections	
for control circuit solid	2x (0.25 1.5 mm²)
<ul> <li>for control circuit finely stranded with core end processing</li> </ul>	2x (0.25 1.5 mm²)
<ul> <li>at AWG cables for control circuit solid</li> </ul>	2x (24 16)
<ul> <li>at AWG cables for control circuit finely stranded with core end processing</li> </ul>	2x (24 16)
wire length	
<ul> <li>between soft starter and motor maximum</li> </ul>	800 m
<ul> <li>at the digital inputs at AC maximum</li> </ul>	100 m
tightening torque	
for main contacts with screw-type terminals	10 14 N·m
for auxiliary and control contacts with screw-type	0.8 1.2 N·m
terminals tightening torque [lbf·in]	
for main contacts with screw-type terminals	89 124 lbf·in
	7 10.3 lbf·in
for auxiliary and control contacts with screw-type terminals	اانانا الله الله الله الله الله الله الل
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog  -25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport	-25 +60 °C; Please observe derating at temperatures of 40 °C or
installation altitude at height above sea level maximum  ambient temperature  • during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must
installation altitude at height above sea level maximum ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
installation altitude at height above sea level maximum ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum  ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A  Yes Yes Yes
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
installation altitude at height above sea level maximum  ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A  Yes Yes Yes
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A  Yes Yes Yes
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A  Yes Yes Yes
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for High Faults at 460/480 V according	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)  acc. to IEC 60947-4-2: Class A  Yes  Yes  Yes  Yes  Yes
installation altitude at height above sea level maximum  ambient temperature	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)  acc. to IEC 60947-4-2: Class A  Yes Yes Yes Yes Yes Yes Yes Yes
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  environmental category  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for High Faults at 460/480 V according to UL	-25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)  acc. to IEC 60947-4-2: Class A  Yes Yes Yes Yes Yes Yes Yes Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Siemens type: 3VA52, max. 250 A; Iq max = 65 kA

delta circuit according to UL

- usable for Standard Faults at 575/600 V according to UL

- usable for Standard Faults at 575/600 V at inside-delta circuit according to UL

- usable for Standard Faults up to 575/600 V according to UL

- usable for High Faults up to 575/600 V according to UL

- usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL

- usable for High Faults at inside-delta circuit up to 575/600 V according to UL

Siemens type: 3VA52, max. 250 A; Iq = 10 kA

Siemens type: 3VA52, max. 250 A; Iq = 10 kA

Type: Class RK5 / K5, max. 350 A; Iq = 10 kA

Type: Class J / L, max. 350 A; Iq = 100 kA

Type: Class RK5 / K5, max. 350 A; Iq = 10 kA

Type: Class J / L, max. 350 A; Iq = 100 kA

#### 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 200/208 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

30 hp

30 hp 75 hp

50 hp

60 hp

125 hp

contact rating of auxiliary contacts according to UL

R300-B300

#### Safety related data

protection class IP on the front acc. to IEC 60529

touch protection on the front acc. to IEC 60529

electromagnetic compatibility

IP00; IP20 with cover

finger-safe, for vertical contact from the front with cover

in accordance with IEC 60947-4-2

# Certificates/ approvals

#### **General Product Approval**

**EMC** 

**Declaration of** Conformity













# **Test Certificates**

# Marine / Shipping

Type Test Certificates/Test Report











# other

### Confirmation

#### **Further information**

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5234-2TC14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5234-2TC14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5234-2TC14

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=3RW5234-2TC14&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

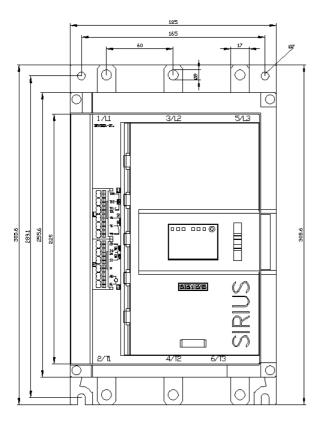
https://support.industry.siemens.com/cs/ww/en/ps/3RW5234-2TC14/char

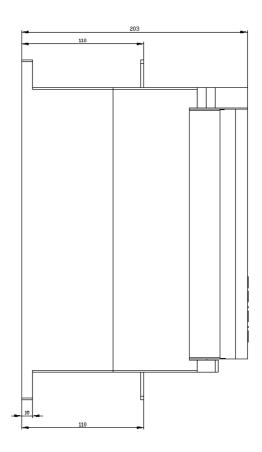
Characteristic: Installation altitude

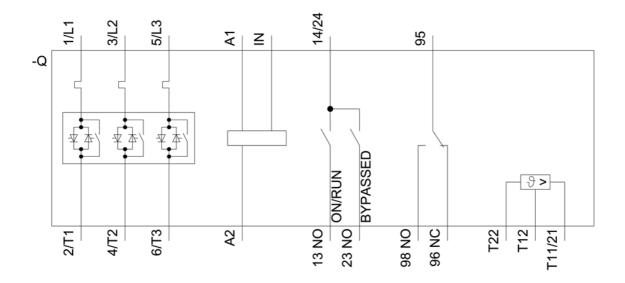
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5234-2TC14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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