## **SIEMENS**

product brand name

Data sheet 3RW5235-2AC04

SIRIUS



SIRIUS soft starter 200-480 V 143 A, 24 V AC/DC spring-type terminals Analog output

p	0.1.1.00
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>	3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	3NA3244-6; Type of coordination 1, Iq = 65 kA
• of the gG fuse usable at inside-delta circuit up to 500 V	3NA3244-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NE1227-0; 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>	3NE3334-0B; Type of coordination 2, Iq = 65 kA
eneral technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 20 s
current limiting value [%] adjustable	130 700 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component	
HMI-High Feature	No
• is supported HMI-Standard	Yes
• is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	3
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	
for main current circuit	100 ms
• for control circuit	100 ms
insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2

impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 400 V
service factor	1
	6 kV
surge voltage resistance rated value	0 KV
maximum permissible voltage for protective separation	600 V
between main and auxiliary circuit     shock resistance	
vibration resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
	15 mm to 6 Hz; 2g to 500 Hz  AC 53a
utilization category according to IEC 60947-4-2 reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	02/15/2018
	02/15/2016
product function	Yes
• ramp-down (soft start)	Yes
• ramp-down (soft stop)	Yes
Soft Torque     adjustable current limitation	Yes
adjustable current limitation	
pump ramp down     intrinsic device protection	Yes Yes
intrinsic device protection     motor overload protection	
motor overload protection     evaluation of thermister meter protection	Yes; Electronic motor overload protection  No
<ul> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> </ul>	Yes
	Yes
auto-RESET     manual PESET	Yes
manual RESET     remote reset	
	Yes; By turning off the control supply voltage Yes
communication function     constraint measured value display	
operating measured value display	Yes; Only in conjunction with special accessories
<ul><li>error logbook</li><li>via software parameterizable</li></ul>	Yes; Only in conjunction with special accessories  No
via software configurable	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication module
firmware update	Yes
removable terminal for control circuit	Yes
torque control	No
analog output	Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
Power Electronics	roo, riii 20 iii (doldali) ro iii 10 1 (paraiiotoi 2220 iii 11 iigi rodalio riiii)
operational current	
at 40 °C rated value	143 A
at 50 °C rated value	128 A
• at 60 °C rated value	118 A
operational current at inside-delta circuit	
at 40 °C rated value	248 A
• at 50 °C rated value	222 A
at 60 °C rated value	204 A
operating voltage	
• rated value	200 480 V
at inside-delta circuit rated value	200 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	-13 /0
	10 %
relative negative tolerance of the operating voltage at inside-delta circuit	
	10 %
inside-delta circuit relative positive tolerance of the operating voltage at	10 % -15 %
inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit	10 % -15 %
inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors	10 % -15 % 10 %
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value	10 % -15 % 10 %
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value  • at 230 V at inside-delta circuit at 40 °C rated value	10 % -15 % 10 % 37 kW 75 kW
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value  • at 230 V at inside-delta circuit at 40 °C rated value  • at 400 V at 40 °C rated value	10 % -15 % 10 % 37 kW 75 kW
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value  • at 230 V at inside-delta circuit at 40 °C rated value  • at 400 V at 40 °C rated value  • at 400 V at inside-delta circuit at 40 °C rated value	10 % -15 %  10 %  37 kW 75 kW 75 kW
inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value  • at 230 V at inside-delta circuit at 40 °C rated value  • at 400 V at 40 °C rated value  • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value	10 % -15 %  10 %  37 kW 75 kW 75 kW 132 kW

adjustable motor current	
<ul> <li>at rotary coding switch on switch position 1</li> </ul>	68 A
<ul> <li>at rotary coding switch on switch position 2</li> </ul>	73 A
<ul> <li>at rotary coding switch on switch position 3</li> </ul>	78 A
<ul> <li>at rotary coding switch on switch position 4</li> </ul>	83 A
<ul> <li>at rotary coding switch on switch position 5</li> </ul>	88 A
<ul> <li>at rotary coding switch on switch position 6</li> </ul>	93 A
<ul> <li>at rotary coding switch on switch position 7</li> </ul>	98 A
<ul> <li>at rotary coding switch on switch position 8</li> </ul>	103 A
<ul> <li>at rotary coding switch on switch position 9</li> </ul>	108 A
<ul> <li>at rotary coding switch on switch position 10</li> </ul>	113 A
<ul> <li>at rotary coding switch on switch position 11</li> </ul>	118 A
<ul> <li>at rotary coding switch on switch position 12</li> </ul>	123 A
<ul> <li>at rotary coding switch on switch position 13</li> </ul>	128 A
<ul> <li>at rotary coding switch on switch position 14</li> </ul>	133 A
<ul> <li>at rotary coding switch on switch position 15</li> </ul>	138 A
<ul> <li>at rotary coding switch on switch position 16</li> </ul>	143 A
• minimum	68 A
adjustable motor current	
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 1</li> </ul>	118 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 2</li> </ul>	126 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 3</li> </ul>	135 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 4</li> </ul>	144 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 5</li> </ul>	152 A
for inside-delta circuit at rotary coding switch on switch position 6	161 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 7</li> </ul>	170 A
for inside-delta circuit at rotary coding switch on switch position 8      for inside delta circuit at rotary coding switch on swit	178 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 switch</li> </ul>	187 A 196 A
position 10  • for inside-delta circuit at rotary coding switch on switch	204 A
position 11  • for inside-delta circuit at rotary coding switch on switch	213 A
position 12 • for inside-delta circuit at rotary coding switch on switch	222 A
position 13 • for inside-delta circuit at rotary coding switch on switch	230 A
position 14 • for inside-delta circuit at rotary coding switch on switch	239 A
position 15  • for inside-delta circuit at rotary coding switch on switch	248 A
position 16	
at inside-delta circuit minimum	118 A
minimum load [%]	15 %; Relative to smallest settable le
power loss [W] for rated value of the current at AC	EE W
• at 40 °C after startup	55 W
• at 50 °C after startup	50 W
• at 60 °C after startup	47 W
power loss [W] at AC at current limitation 350 %	2.427.10/
• at 40 °C during startup	2 127 W
at 50 °C during startup     at 60 °C during startup	1 807 W
at 60 °C during startup  Control circuit/ Control	1 605 W
	ACIDO
type of voltage of the control supply voltage control supply voltage at AC	AC/DC
at 50 Hz rated value	24 V
- at 50 FIZ Tatou value	2.,

* all 0 Hz rated value  AC at 50 Hz  AC at 50 Hz  relative positive tolorance of the control supply voltage at AC at 50 Hz  relative positive tolorance of the control supply voltage at AC at 50 Hz  relative positive tolorance of the control supply voltage at AC at 50 Hz  relative positive tolorance of the control supply voltage at AC at 50 Hz  control supply voltage frequency  frequency  frequency  ** all D rated value  ** all A rated v		
AC at 80 MZ relative positive foliance of the control supply voltage at AC at 80 MZ relative positive foliance of the control supply voltage at AC at 80 MZ relative regative tolerance of the control supply voltage at AC at 80 MZ relative positive foliance of the control supply voltage at AC at 80 MZ relative positive foliance of the control supply voltage relative regative tolerance of the control supply voltage relative regative tolerance of the control supply voltage ***ID C relative value tolerance of the control supply voltage ***ID C relative value tolerance of the control supply voltage ***ID C relative value tolerance of the control supply voltage at C control supply current in standardy mode rated value ***ID C relative positive tolerance of the control supply voltage at C control supply current in standardy mode rated value ***ID C relative positive tolerance of the control supply voltage at C control supply current in standardy mode rated value ***In current peak at application of control supply voltage at C control supply current in standardy mode rated value ***In current peak at application of control supply voltage at C control supply current in bypess operation rated value ***In current peak at application of control supply voltage at C control supply current peak at application of control supply voltage at C control supply current peak at C control supply current peak at C control supply control	at 60 Hz rated value	24 V
AC at 60 ftz relative negative tolerance of the control supply voltage at AC at 60 ftz relative negative tolerance of the control supply voltage relative negative tolerance of the control supply voltage requency relative positive tolerance of the control supply voltage requency relative positive tolerance of the control supply voltage requency relative negative tolerance of the control supply voltage requency relative negative tolerance of the control supply voltage relative negative tolerance of the control supply voltage at DC control supply control to supply voltage at DC control supply control to supply voltage at DC control supply tolerance of the control supply voltage at DC control supply control to supply voltage at DC control supply control to supply voltage at DC control supply supply control supply voltage at DC control supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply supply supply supply supply voltage at DC control supply		-20 %
AC at 6 14z relative positive tolorance of the control supply voltage at AC at 6 14z control supply voltage frequency relative positive tolorance of the control supply voltage frequency relative positive tolorance of the control supply voltage frequency relative positive tolorance of the control supply voltage frequency relative positive tolorance of the control supply voltage at CC control supply voltage * at DC relative positive tolorance of the control supply voltage at DC control supply current in standby mode rated value 180 mA holding current in bypass operation rated value 180 mA holding current in bypass operation rated value 180 mA holding current in bypass operation rated value 180 mA holding current in bypass operation rated value 180 mA holding current in bypass operation rated value 180 mA holding current of the physes contacts maximum 7.6 A 3.3 A  "A 3 A  "A 3 A  "A 3 A  "A 4 3 G lisse (four=1 kA), 6 A quick-acting fuse (four=1 kA), C1 ministure circuit breaker (four=300 A), is not part of scape of supply voltage  "A 4 G G lisse (four=1 kA), 6 A ministure circuit breaker (four=300 A), is not part of scape of supply voltage  "A 6 C liss at 250 V rated value  1 A  1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1		20 %
AC at 0 Hz  control supply voltage frequency relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply voltage # at DC Circle days #		-20 %
relative negative tolerance of the control supply voltage relative positive tolerance of the control supply voltage a to DC rated value a tolerance of the control supply voltage a tolerance of the control supply voltage a tolerance of the control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage at the control of invals current peak at application of control supply voltage (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu=300 A), is not part of supply at the control of supply a		20 %
frequency  ** at DC rated value  ** both repairs at the control supply voltage at DC  ** control supply current in standby mode rated value  ** holding current in by pass operation rated value  ** holding current in by closing the bypass contacts maximum  ** rate value value  ** rated value  ** rated value  ** rated value  ** rated value  ** design of the over-voltage protection  ** design of the over-voltage protection  ** design of short-circuit protection for control supply voltage  ** at DC rated value  ** on parameterizable  ** on parameterizable  ** at AC -15 at 250 v rated value  ** at AC -15 at 250 v ra	control supply voltage frequency	50 60 Hz
frequency  and TC craited value  control supply voltage at CC  control supply current in standby mode rated value  holding current in bypass operation rated value  holding current in bypass operation rated value  linush current by closing the bypass contacts maximum  inrush current peak at application of control supply voltage maximum  design of the overvoltage protection  design of short-circuit protection for control county  voltage  number of digital inputs  number of digital inputs  number of digital output version  not parameterizable  digital output version  at DC-13 at 24 V rated value  at DC-13 at 24 V rated value  1 at DC-13 at 250 V rated value  1 at DC-13 at 250 V rated value  1 at DC-13 at 24 V rated value  1 at DC-13 at 24 V rated value  1 blockwards		-10 %
e at DC rated value 24 V  relative negative tolerance of the control supply voltage at policy positive tolerance of the control supply voltage at 20 %  Control supply current in standby mode rated value 160 mA  holding current in bypass operation rated value 380 mA  Inrush current pask at application of control supply voltage maximum 7.6 A  mush current pask at application of control supply voltage maximum 2.1 ms. and current peak at application of control supply voltage maximum 2.2 ms. and current peak at application of control supply voltage maximum 2.2 ms. and current peak at application of control supply voltage maximum 2.2 ms. and current peak at application of control supply voltage maximum 2.2 ms. and current peak at application of control circuit 4.4 pg 6 lace (four 1 kA), 6 A quick-acting fuse ((cur-1 kA), C1 miniature circuit breafter (four 500 A), C6 miniature circuit breafter (four 500 A), C6 miniature circuit breafter (four 500 A), C7 miniature circuit breafter (four 500 A), C8 miniature circuit four four four four four four four four		10 %
relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply current in standby mode rated value  holding current in bypass operation rated value  Innush current by closing the bypass contacts maximum  Innush current peak at application of control supply voltage  maximum  duration of innush current peak at application of control supply  voltage  design of the overvoltage protection  design of short-circuit protection for control circuit  by a gravity outputs  number of digital inputs  1  1  1  1  1  1  1  1  1  1  1  1  1	control supply voltage	
relative positive tolerance of the control supply voltage at DC  control supply current in standby mode rated value  holding current by closing the bypass contracts maximum  rinush current peak at application of control supply voltage maximum  duration of inrush current peak at application of control supply voltage maximum  duration of inrush current peak at application of control supply voltage maximum  duration of inrush current peak at application of control supply voltage maximum  duration of inrush current peak at application of control supply voltage maximum  design of the overvoltage protection  design of short-circuit protection for control circuit  design of short-circuit protection for control circuit  the state (cu= 800 A), C & ministure circuit breaker (cu= 300 A), C & ministu	at DC rated value	24 V
control supply current in standby mode rated value holding current in bypass operation rated value   180 mA   1		-20 %
holding current in bypass operation rated value Inrush current peak at application of control supply voltage maximum  A A gG fluse (fcuent kA), 6 A quick-acting fuse (fcuent kA), C1 miniature circuit breaker (fcuend b) A, G6 miniature circuit breaker (fcuend b) A, G7 miniature circuit bushar contacts finely standed by G7		20 %
Inrush current by closing the bypass contacts maximum inrush current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection  design of short-circuit protection for control circuit  braker (icu= 600 A), C6 miniature circuit braker (icu= 300 A); Is not part of scope of supply  Inputs/ Outputs  number of digital inputs  number of digital outputs  • not parameterizable  2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs  • at AC-15 at 250 V rated value  • at AC-15 at 250 V rated value  • at AC-15 at 24 V rated value  • at AC-15 at 250 V rated value  • forwards  • obsciveration  • forwards  • obsciveration  • formands  • coveration  • formands  • coveration  • for main current circuit  • for control circuit  • for control circuit  • for control circuit  • for control circuit  • for for IN cable lug for main contacts finely stranded  • for DIN cable lug for main contacts finely stranded  • for DIN cable lug for main contacts finely stranded  • for DIN cable lug for main contacts finely stranded  • type of connectable conductor cross-sections	control supply current in standby mode rated value	160 mA
Intrush current peak at application of control supply voltage maximum  design of history the overvoltage protection  design of short-circuit protection for control circuit  design of short-circuit protection for control circuit  Inputs/ Outputs  number of digital inputs  • not perameterizable  • on ot perameterizable  • at AC-15 at 250 V rated value  • at DC-13 at 24 V rated value  • at DC-13 at 24 V rated value  • at DC-13 at 24 V rated value  • at DC-15 at 25 W rated valu	holding current in bypass operation rated value	380 mA
maximum duration of innush current peak at application of control supply voltage design of the overvoltage protection design of short-circuit protection for control circuit breaker (cu= 600 A), C6 miniature circuit breaker (icu= 300 A), is not part of soope of supply  Inputs/ Outputs  number of digital inputs number of digital inputs number of digital outputs in on parameterizable 2 2 onormally-open contacts (NO) / 1 changeover contact (CO)  number of analog outputs 1 switching capacity current of the relay outputs in at AC-13 at 24 V rated value if at AC-13 at 25 of varied value if at AC-13 at AC-13 at 25 of varied value if at AC-13 a	inrush current by closing the bypass contacts maximum	7.6 A
voltage design of the overvoltage protection design of short-circuit protection for control circuit  design of short-circuit protection for control circuit  preaker (icu= 600 A), C8 miniature circuit breaker (icu= 300 A); Is not part of scope of supply  Inputs/ Outputs  number of digital inputs  • not parameterizable  • not parameterizable  • at not parameterizable  • at AC-15 at 250 V rated value  • at AC-13 at 24 V rated value  • at AC-13 at 24 V rated value  • at AC-13 at 24 V rated value  fastening method  sorew fixing  fastening method  sorew fixing  fastening method  sorew fixing  • lowards  • lowards  • lowards  • downwards  • downwards  • downwards  • downwards  • downwards  • at the side  • downwards  • at the side  • for INI cable lug for main contacts fixing stranded  • for Orlin Cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for DIN cable lug for main contacts fixing stranded  • for Connectable conductor cross-sections  • for Connectable conductor cross-sections		3.3 A
design of short-circuit protection for control circuit  breaker (cu= 800 A), C6 miniature circuit breaker (cu= 300 A); Is not part of scope of supply  number of digital inputs 1 number of digital outputs 2 number of digital outputs 3 number of analog outputs 1 switching capacity current of the relay outputs 4 at AC-15 at 250 V rated value 5 at AC-15 at 250 V rated value 6 at DC-13 at 24 V rated value 7 at AC-15 at 250 V rated value 8 at Cb-13 at 24 V rated value 9 at DC-13 at 24 V rated value 1 height 1 ascending method 1 ascending method 1 ascending method 1 ascending with side-by-side mounting 1 at maximum 2 at maximum 2 at maximum 3 and maximum 4 at maximum 4 at maximum 5 at the side 5 mm  weight without packaging 6 at the side 5 mm  weight without packaging 6 at the side 5 mm  weight without packaging 6 at the side 5 mm  weight without packaging 6 arm connections 6 for main current circuit 9 for connectable conductor cross-sections 6 for INI cable lug for main contacts finanded 7 type of connectable conductor cross-sections 6 for INI cable lug for main contacts finanded 7 type of connectable conductor cross-sections 6 for INI cable lug for main contacts finanded 7 type of connectable conductor cross-sections 6 for INI cable lug for main contacts finanded 7 type of connectable conductor cross-sections 9 for INI cable lug for main contacts finanded 9 2x (25 120 mm²)		12.1 ms
Inputs/ Outputs  number of digital inputs 1 number of digital outputs 3 ent parameterizable 2 digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 1 exit AC-15 at 250 V rated value 3 A ent DC-13 at 24 V rated value 1 A establishment position 4+/-22.5° tilitable to the front and back screw fixing height 40 pmm width 306 mm with vertical mounting surface +/-90° rotatable, with vertical mounting surface end to the format and back screw fixing 40 mm ending position 4185 mm depth 203 mm required spacing with side-by-side mounting ending	design of the overvoltage protection	Varistor
number of digital inputs  number of digital outputs  number of digital outputs  number of digital outputs  number of digital outputs  number of analog outputs  digital output version  number of analog outputs  1  switching capacity current of the relay outputs  at AC-15 at 250 V rated value  at DC-13 at 24 V rated value  1 A  Installation/ mounting/ dimensions  mounting position  with vertical mounting surface +/-90" rotatable, with vertical mounting surface  4-/- 22.5" tiltable to the front and back  fastening method  screw fixing  height  306 mm  width  depth  203 mm  required spacing with side-by-side mounting  forwards  backwards  0 mm  backwards  0 mm  cupwards  downwards  downwa	design of short-circuit protection for control circuit	breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of
number of digital outputs  • not parameterizable  2 digital output version  number of analog outputs  1 switching capacity current of the relay outputs  • at AC-15 at 250 V rated value  • at AC-15 at 24 V rated value  1 A  Installation/ mounting/dimensions  mounting position  with vertical mounting surface +/-90° rotatable, with vertical mounting surface  +/- 22.5° tillable to the front and back  fastening method  beight  306 mm  width  185 mm  depth  203 mm  required spacing with side-by-side mounting  • forwards  • pupwards  • upwards  • upwards  • downwards  • at the side  vertical side  5 mm  weight without packaging  6.6 kg  Connections/ Terminals  type of electrical connection  • for main current circuit  • for control circuit  spring-loaded terminals  width of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections	Inputs/ Outputs	
Interview of an analysis of the relation of t	number of digital inputs	1
digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 1 switching capacity current of the relay outputs	number of digital outputs	3
number of analog outputs  switching capacity current of the relay outputs  • at AC-15 at 250 V rated value  • at DC-13 at 24 V rated value  Installation/mounting/dimensions  mounting position  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mounting surface +/-90° rotatable, with vertical mounting surface  ### vertical mount	not parameterizable	2
switching capacity current of the relay outputs  • at AC-15 at 250 V rated value  • at DC-13 at 24 V rated value  1 A  Installation/ mounting/ dimensions  mounting position  with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tittable to the front and back  fastening method  screw fixing  height  306 mm  width  185 mm  depth  required spacing with side-by-side mounting  • forwards  • backwards  • upwards  • downwards  • downwards  • at the side  5 mm  weight without packaging  Connections/ Terminals  type of electrical connection  • for control circuit  • for control circuit  width of connectable conductor cross-sections  • for DIN cable lug for main contacts stranded  • for DIN cable lug for main contacts stranded  • for DIN cable lug for main contacts stranded  • for connectable conductor cross-sections  type of connectable conductor cross-sections	digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
at AC-15 at 250 V rated value  at DC-13 at 24 V rated value  1 A  Installation/ mounting/ dimensions  mounting position  with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back  fastening method  screw fixing  height  306 mm  width  185 mm  depth  203 mm  required spacing with side-by-side mounting  forwards  backwards  0 mm  upwards  downwards  4 the side  weight without packaging  connections/ Terminals  type of electrical connection  for control circuit  for control circuit  for connection bar maximum  type of connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded  for connectable conductor cross-sections  for connectable conductor cross-sections  for connectable conductor cross-sections  for connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded  fund vertical mounting surface +/-90° rotatable, with vertical mounting	number of analog outputs	1
• at DC-13 at 24 V rated value 1 A  Installation/ mounting/ dimensions  mounting position	switching capacity current of the relay outputs	
Installation/ mounting/ dimensions  mounting position  #ivertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back  screw fixing  height  306 mm  width  185 mm  depth  required spacing with side-by-side mounting  forwards  backwards  upwards  downwards  downwards  at the side  strew fixing  10 mm  10 mm  6 downwards  6 downwards  6 downwards  75 mm  eat the side  smm  weight without packaging  6.6 kg  Connections/ Terminals  type of electrical connection  for main current circuit  for control circuit  for connectable conductor cross-sections  for DIN cable lug for main contacts stranded  for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded  for DIN cable lug for main contacts finely stranded  for DIN cable conductor cross-sections	• at AC-15 at 250 V rated value	3 A
mounting position  with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back  screw fixing  height  306 mm  width  depth  203 mm  required spacing with side-by-side mounting  • forwards  • backwards  • upwards  • downwards  • at the side  yeight without packaging  connections/ Terminals  type of electrical connection  • for control circuit  • for control circuit  • for control circuit  • for connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  type of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  type of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  type of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  2x (25 120 mm²)		1 A
fastening method screw fixing height 306 mm width 185 mm depth 203 mm required spacing with side-by-side mounting	Installation/ mounting/ dimensions	
height     306 mm       width     185 mm       depth     203 mm       required spacing with side-by-side mounting     10 mm       • forwards     10 mm       • backwards     0 mm       • upwards     100 mm       • downwards     75 mm       • at the side     5 mm       weight without packaging     6.6 kg       Connections/ Terminals       type of electrical connection     busbar connection       • for main current circuit     busbar connection       • for control circuit     spring-loaded terminals       width of connectable conductor cross-sections     25 mm       type of connectable lug for main contacts stranded     2x (16 95 mm²)       • for DIN cable lug for main contacts stranded     2x (25 120 mm²)       type of connectable conductor cross-sections	mounting position	
width 185 mm   depth 203 mm   required spacing with side-by-side mounting 10 mm   • forwards 10 mm   • backwards 0 mm   • upwards 100 mm   • downwards 75 mm   • at the side 5 mm   weight without packaging 6.6 kg   Connections/ Terminals   type of electrical connection 6 for main current circuit   • for control circuit busbar connection   • for control circuit spring-loaded terminals   width of connectable conductor cross-sections 25 mm   • 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	fastening method	screw fixing
depth     203 mm       required spacing with side-by-side mounting     10 mm       • forwards     0 mm       • backwards     0 mm       • upwards     100 mm       • downwards     75 mm       • at the side     5 mm       weight without packaging     6.6 kg       Connections/ Terminals       type of electrical connection     busbar connection       • for main current circuit     busbar connection       • for control circuit     spring-loaded terminals       width of connectable conductor cross-sections     25 mm       • 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		
required spacing with side-by-side mounting  • forwards • backwards • upwards • downwards • at the side • at the side  weight without packaging  Connections/ Terminals  type of electrical connection • for main current circuit • for control circuit • for control circuit  width of connection bar maximum  type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections	width	
forwards     backwards     upwards     upwards     downwards     at the side     5 mm      weight without packaging      Connections/ Terminals      type of electrical connection         for main current circuit	·	203 mm
backwards     upwards     upwards     downwards     at the side     5 mm      weight without packaging     6.6 kg  Connections/ Terminals  type of electrical connection     for main current circuit     for control circuit     spring-loaded terminals  width of connection bar maximum  type of connectable conductor cross-sections     for DIN cable lug for main contacts finely stranded     2x (16 95 mm²)  type of connectable conductor cross-sections  for DIN cable lug for main contacts finely stranded     2x (25 120 mm²)  type of connectable conductor cross-sections		
<ul> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>5 mm</li> <li>weight without packaging</li> <li>6.6 kg</li> </ul> Connections/ Terminals type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> <li>spring-loaded terminals</li> </ul> width of connection bar maximum <ul> <li>type of connectable conductor cross-sections</li> <li>for DIN cable lug for main contacts stranded</li> <li>for DIN cable lug for main contacts finely stranded</li> <li>type of connectable conductor cross-sections</li> </ul> type of connectable conductor cross-sections <ul> <li>for DIN cable lug for main contacts finely stranded</li> <li>2x (25 120 mm²)</li> </ul> type of connectable conductor cross-sections type of connectable conductor cross-sections		
<ul> <li>downwards</li> <li>at the side</li> <li>5 mm</li> <li>weight without packaging</li> <li>6.6 kg</li> </ul> Connections/ Terminals type of electrical connection <ul> <li>for main current circuit</li> <li>for control circuit</li> <li>spring-loaded terminals</li> </ul> width of connection bar maximum <ul> <li>type of connectable conductor cross-sections</li> <li>for DIN cable lug for main contacts stranded</li> <li>for DIN cable lug for main contacts finely stranded</li> <li>type of connectable conductor cross-sections</li> </ul> 1 (25 120 mm²) type of connectable conductor cross-sections		
● at the side 5 mm  weight without packaging 6.6 kg  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  type of connectable conductor cross-sections  ● 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		
weight without packaging  Connections/ Terminals  type of electrical connection  • for main current circuit busbar connection  • for control circuit spring-loaded terminals  width of connection bar maximum 25 mm  type of connectable conductor cross-sections  • 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		
type of electrical connection  • for main current circuit busbar connection  • for control circuit spring-loaded terminals  width of connection bar maximum 25 mm  type of connectable conductor cross-sections  • 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		
type of electrical connection  • for main current circuit  • for control circuit  spring-loaded terminals  width of connection bar maximum  type of connectable conductor cross-sections  • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections		0.0 kg
• for main current circuit     • for control circuit     • for control circuit     • spring-loaded terminals  width of connection bar maximum  type of connectable conductor cross-sections     • for DIN cable lug for main contacts stranded     • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  type of connectable conductor cross-sections  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections		
<ul> <li>◆ for control circuit</li> <li>width of connection bar maximum</li> <li>type of connectable conductor cross-sections</li> <li>◆ for DIN cable lug for main contacts stranded</li> <li>◆ for DIN cable lug for main contacts finely stranded</li> <li>type of connectable conductor cross-sections</li> </ul>	• •	huchar connection
width of connection bar maximum  type of connectable conductor cross-sections  of or DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded  2x (16 95 mm²)  2x (25 120 mm²)  type of connectable conductor cross-sections		
type of connectable conductor cross-sections  • for DIN cable lug for main contacts stranded  • for DIN cable lug for main contacts finely stranded  2x (16 95 mm²)  2x (25 120 mm²)  type of connectable conductor cross-sections		
<ul> <li>for DIN cable lug for main contacts stranded</li> <li>for DIN cable lug for main contacts finely stranded</li> <li>type of connectable conductor cross-sections</li> </ul> 2x (16 95 mm²) 2x (25 120 mm²)		20 11111
• for DIN cable lug for main contacts finely stranded 2x (25 120 mm²)  type of connectable conductor cross-sections		2x (16 95 mm²)
type of connectable conductor cross-sections	-	
		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>for AWG cables for control circuit solid</li> </ul>	2x (24 16)
<ul> <li>for AWG cables for control circuit finely stranded with core end processing</li> </ul>	2x (24 16)
wire length	
between soft starter and motor maximum	800 m
at the digital inputs at AC maximum	100 m
at the digital inputs at DC maximum	1 000 m
tightening torque	
for main contacts with screw-type terminals	10 14 N·m
for auxiliary and control contacts with screw-type	0.8 1.2 N·m
terminals	
tightening torque [lbf·in]	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	89 124 lbf-in
<ul> <li>for auxiliary and control contacts with screw-type terminals</li> </ul>	7 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
during storage and transport	-40 +80 °C
environmental category	
<ul> <li>during operation according to IEC 60721</li> </ul>	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul> <li>during storage according to IEC 60721</li> </ul>	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
<ul> <li>during transport according to IEC 60721</li> </ul>	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
EMC emitted interference	acc. to IEC 60947-4-2: Class A
Communication/ Protocol	
communication module is supported	
<ul> <li>PROFINET standard</li> </ul>	Yes
EtherNet/IP	Yes
Modbus RTU	Yes
Modbus TCP	Yes
• PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
<ul> <li>usable for Standard Faults at 460/480 V according to UL</li> </ul>	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
— usable for High Faults at 460/480 V according to UL	Siemens type: 3VA52, max. 250 A; lq max = 65 kA
<ul> <li>usable for Standard Faults at 460/480 V at inside- delta circuit according to UL</li> </ul>	Siemens type: 3VA52, max. 250 A; lq = 10 kA
<ul> <li>usable for High Faults at 460/480 V at inside-delta circuit according to UL</li> </ul>	Siemens type: 3VA52, max. 250 A; lq max = 65 kA
<ul> <li>usable for Standard Faults at 575/600 V according to UL</li> </ul>	
	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
<ul> <li>usable for Standard Faults at 575/600 V at inside- delta circuit according to UL</li> </ul>	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Siemens type: 3VA52, max. 250 A; Iq = 10 kA
delta circuit according to UL	
delta circuit according to UL  • of the fuse  — usable for Standard Faults up to 575/600 V	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up	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
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL  operating power [hp] for 3-phase motors	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL  operating power [hp] for 3-phase motors  at 200/208 V at 50 °C rated value	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  40 hp
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL  operating power [hp] for 3-phase motors  at 200/208 V at 50 °C rated value  at 220/230 V at 50 °C rated value	Siemens type: 3VA52, max. 250 A; Iq = 10 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  Type: Class RK5 / K5, max. 350 A; Iq = 10 kA  Type: Class J / L, max. 350 A; Iq = 100 kA  40 hp  40 hp
delta circuit according to UL  of the fuse  usable for Standard Faults up to 575/600 V according to UL  usable for High Faults up to 575/600 V according to UL  usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL  usable for High Faults at inside-delta circuit up to 575/600 V according to UL  operating power [hp] for 3-phase motors  at 200/208 V at 50 °C rated value  at 460/480 V at 50 °C rated value	Siemens type: 3VA52, max. 250 A; lq = 10 kA  Type: Class RK5 / K5, max. 350 A; lq = 10 kA  Type: Class J / L, max. 350 A; lq = 100 kA  Type: Class RK5 / K5, max. 350 A; lq = 10 kA  Type: Class J / L, max. 350 A; lq = 100 kA  40 hp 40 hp 100 hp

contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front according to IEC 60529	IP00; IP20 with cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover
electromagnetic compatibility	in accordance with IEC 60947-4-2
Certificates/ approvals	

**General Product Approval** 

**EMC** 



Confirmation









**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping



Confirmation

## Further information

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

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

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

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

Information on the packaging

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

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5235-2AC04

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5235-2AC04}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5235-2AC04

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5235-2AC04&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

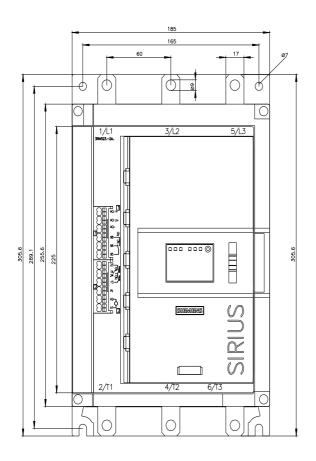
https://support.industry.siemens.com/cs/ww/en/ps/3RW5235-2AC04/char

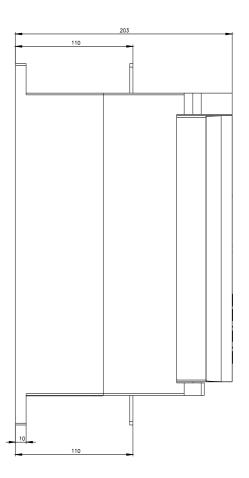
Characteristic: Installation altitude

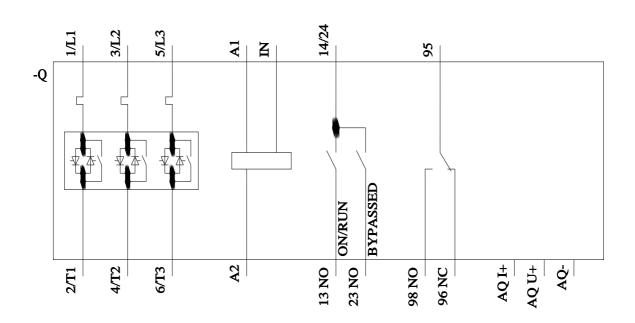
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5235-2AC04&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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