## **SIEMENS**

product brand name

Data sheet 3RW5248-2TC14

SIRIUS



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

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>	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V</li> </ul>	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 400 V at inside-delta circuit</li> </ul>	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V at inside-delta circuit</li> </ul>	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of the gG fuse usable at inside-delta circuit up to 500 V</li> </ul>	2x3NA3365-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NE1437-2; 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>	3NE3340-8; 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	
<ul> <li>CE marking</li> </ul>	Yes
UL approval	Yes
CSA approval	Yes

product component is supported

product feature integrated bypass contact system

• HMI-Standard

• HMI-High Feature

Yes

Yes

Yes

number of centralled phases	2
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	400
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	1 600 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
between main and auxiliary circuit	600 V
shock resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
vibration resistance	15 mm to 6 Hz; 2g to 500 Hz
utilization category acc. to IEC 60947-4-2	AC 53a
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	15.02.2018 00:00:00
product function	
<ul><li>ramp-up (soft starting)</li></ul>	Yes
<ul><li>ramp-down (soft stop)</li></ul>	Yes
Soft Torque	Yes
<ul> <li>adjustable current limitation</li> </ul>	Yes
<ul><li>pump ramp down</li></ul>	Yes
<ul> <li>intrinsic device protection</li> </ul>	Yes
motor overload protection	Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)
<ul> <li>evaluation of thermistor motor protection</li> </ul>	Yes; Type A PTC or Klixon / Thermoclick
inside-delta circuit	Yes
auto-RESET	Yes
manual RESET	Yes
remote reset	Yes; By turning off the control supply voltage
<ul> <li>communication function</li> </ul>	Yes
<ul> <li>operating measured value display</li> </ul>	Yes; Only in conjunction with special accessories
<ul><li>error logbook</li></ul>	Yes; Only in conjunction with special accessories
<ul> <li>via software parameterizable</li> </ul>	No
<ul> <li>via software configurable</li> </ul>	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication module
• firmware update	Yes
<ul> <li>removable terminal for control circuit</li> </ul>	Yes
<ul> <li>torque control</li> </ul>	No
analog output	No
Power Electronics	
operational current	
<ul> <li>at 40 °C rated value</li> </ul>	570 A
<ul> <li>at 50 °C rated value</li> </ul>	504 A
at 60 °C rated value	460 A
operational current at inside-delta circuit	
<ul> <li>at 40 °C rated value</li> </ul>	987 A
<ul> <li>at 50 °C rated value</li> </ul>	873 A
at 60 °C rated value	796 A
operating voltage	
• rated value	200 480 V
at inside-delta circuit rated value	200 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at	-15 %
inside-delta circuit	

relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
<ul> <li>at 230 V at 40 °C rated value</li> </ul>	160 kW
<ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul>	315 kW
<ul> <li>at 400 V at 40 °C rated value</li> </ul>	315 kW
<ul> <li>at 400 V at inside-delta circuit at 40 °C rated value</li> </ul>	560 kW
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
adjustable motor current	
<ul> <li>at rotary coding switch on switch position 1</li> </ul>	240 A
<ul> <li>at rotary coding switch on switch position 2</li> </ul>	262 A
<ul> <li>at rotary coding switch on switch position 3</li> </ul>	284 A
<ul> <li>at rotary coding switch on switch position 4</li> </ul>	306 A
<ul> <li>at rotary coding switch on switch position 5</li> </ul>	328 A
<ul> <li>at rotary coding switch on switch position 6</li> </ul>	350 A
<ul> <li>at rotary coding switch on switch position 7</li> </ul>	372 A
at rotary coding switch on switch position 8	394 A
at rotary coding switch on switch position 9	416 A
at rotary coding switch on switch position 10	438 A
at rotary coding switch on switch position 11	460 A
<ul> <li>at rotary coding switch on switch position 12</li> </ul>	482 A
<ul> <li>at rotary coding switch on switch position 13</li> </ul>	504 A
at rotary coding switch on switch position 14	526 A
at rotary coding switch on switch position 15	548 A
at rotary coding switch on switch position 16	570 A
• minimum	240 A
adjustable motor current	
for inside-delta circuit at rotary coding switch on switch position 1	416 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 2</li> </ul>	454 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 3</li> </ul>	492 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 4</li> </ul>	530 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 5</li> </ul>	568 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 6</li> </ul>	606 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 7</li> </ul>	644 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 8</li> </ul>	682 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 9</li> </ul>	721 A
for inside-delta circuit at rotary coding switch on switch position 10	759 A
for inside-delta circuit at rotary coding switch on switch position 11	797 A
for inside-delta circuit at rotary coding switch on switch position 12      for inside delta size if at rotary coding switch on switch on the size if a	835 A
for inside-delta circuit at rotary coding switch on switch position 13	873 A
for inside-delta circuit at rotary coding switch on switch position 14      for inside delta singuit at rotary coding switch on switch on the singuit at rotary coding switch on the switch of the singuit at rotary coding switch on the switch of the s	911 A
for inside-delta circuit at rotary coding switch on switch position 15      for inside delta circuit at rotary coding switch on	949 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 16</li> </ul>	987 A

at inside-delta circuit minimum	416 A
minimum load [%]	15 %; Relative to smallest settable le
power loss [W] for rated value of the current at AC	,
• at 40 °C after startup	183 W
at 50 °C after startup	163 W
at 60 °C after startup	153 W
power loss [W] at AC at current limitation 350 %	100 11
• at 40 °C during startup	10 241 W
at 50 °C during startup	8 500 W
at 60 °C during startup	7 663 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	NO
• 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	100 mA
locked-rotor current at close of bypass contact	2.2 A
maximum inrush current peak at application of control supply voltage maximum	12.2 A
duration of inrush current peak at application of control supply voltage	2.2 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply
Inputs/ Outputs	1 113
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	393 mm
width	210 mm
depth	203 mm
required spacing with side-by-side mounting	
<ul><li>forwards</li></ul>	10 mm
<ul><li>backwards</li></ul>	0 mm
• upwards	100 mm

a the side weight without packaging connections/ Torminals type of selectrical connection  of or man current circuit width of connection bar maximum with length for thermistor connection  owith conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-sections of coTN cable lug for main contacts stranged of connectable conductor cross-sections of coTN cable lug for main contacts with screw-lype terminals of countries of the stranger and motor maximum outplanting forcus of main contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype of main contacts with screw-lype terminals of or auxiliary and control contacts with screw-lype of main contacts with screw-lype of main contacts with screw-lype	• downwards	75 mm
Section   Sect	at the side	5 mm
type of electrical connection  • for main current circuit  • for main contacts with screw-type terminals  • for auxilary and control circuit swith screw-type terminals  • for main current circuit swith screw-type terminals  • for auxilary and control contacts with screw-type terminals  • for main contacts with screw-type terminals  • for auxilary and control contacts with screw-type terminals  • for during storage and transport  • during storage and transport  • during storage and transport  • during transport acc to IEC 60721  • during transport acc to IEC 60	weight without packaging	10.6 kg
• for main current circuit  • for main current circuit  • for main current circuit  • for control circuit subtract connection  • with conductor cross-section = 0.5 mm² maximum  • with conductor cross-section = 1.5 mm² maximum  • with conductor cross-section = 2.5 mm² maximum  • with conductor cross-sections • for DN cable lug for main contacts stranded • for DN cable lug for main contacts stranded • for DN cable lug for main contacts with core end processing • at AWG cables for control circuit solid • for control circuit shid • for control circuit shid • at AWG cables for control circuit finely stranded with core end processing • at the digital inputs at AC maximum  • titightening torque • for main contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and control contacts with screw-type terminals • for avaikilary and contr	Connections/ Terminals	
width of connection bar maximum  wire length for thermistor connection  with conductor cross-section = 1.5 mm² maximum  type of connectable conductor cross-sections  of ror DIN cable lug for main contacts stranded  type of connectable conductor cross-sections  of ror DIN cable lug for main contacts stranded  of ror DIN cable lug for main contacts they stranded with core end processing  of recontrol circuit finely stranded with core end processing  at AWG cables for control circuit finely stranded with core end processing  wire length  other with conductor cross-sections  of ror control circuit finely stranded with core end processing  wire length  other with conductor with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control contacts with screw-type terminals  of ror auxiliary and control	type of electrical connection	
with of connection bar maximum witre length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-section 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 control circuit solid for control circuit finely stranded with core end processing at AWG cables for control circuit solid at AWG cables for control circuit finely stranded with core end processing wire length between soft starter and motor maximum at the digital inputs at AC maximum for main contacts with screw-type terminals for auxiliary and control contacts with screw-type for main contacts with screw-type terminals for auxiliary and control contacts with screw-type during languagy and control contacts with screw-type during sorage and transport during operation  which conductor cross-section = 2.5 mm² maximum ambient temperature during storage and transport during storage and transport  which conductor cross-section = 2.5 mm² maximum and the devices are a control contacts with screw-type terminals  statistion attribute at height above sea level maximum ambient temperature during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 Administration of the topic of the screen processing and transport  PROFIRET standard  PROFIRET s	for main current circuit	busbar connection
wire length for thermistor connection  with conductor cross-section = 1.5 mm² maximum  with conductor cross-section = 2.5 mm² maximum  type of connectable conductor cross-sections  • for DIN cable lug for main contacts stranded  • for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections  • for control circuit finely stranded with core end processing  • at AWG cables for control circuit finely stranded with core end processing  • at AWG cables for control circuit finely stranded with core end processing  • at AWG cables for control circuit finely stranded with core end processing  • at the digital inputs at AC maximum  • at the digital inputs at AC maximum  • at the digital inputs at AC maximum  • to rain contacts with screw-type terminals • for auxiliary and control contacts with screw-type termin	for control circuit	spring-loaded terminals
with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum yep of connectable conductor cross-sections for DIN cable lug for main contacts tranded for DIN cable lug for main contacts finely stranded for DIN cable lug for main contacts finely stranded for Control circuit solid for control circuit finely stranded with core end processing at AWC cables for control circuit finely stranded with core end processing at the digital inputs at AC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type	width of connection bar maximum	45 mm
with conductor cross-section = 1.5 mm² maximum type of connectable conductor cross-sections	•	
with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections • for IDIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid • for control circuit solid • at AWG cables for control circuit solid • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing  • at the digital inputs at AC maximum • at the digital inputs at AC maximum • at the digital inputs at AC maximum • for main contacts with screw-type terminals • for auxiliary and control c		
type of connectable conductor cross-sections  • for DIN cable lug for main contacts stranded  • for DIN cable lug for main contacts stranded  type of connectable conductor cross-sections  • for control circuit finely stranded with core end processing  • at AWG cables for control circuit solid  • at AWG cables for control circuit solid  • at AWG cables for control circuit finely stranded with core end processing  wire longth  • between soft starler and motor maximum  • at the digital inputs at AC maximum  tightening torque  • for main contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for mailcality and control contacts with screw-type terminals  installation altitude at height above sea level maximum  ambient conditions  installation altitude at height above sea level maximum  ambient tomporature  • during storage and transport  • during storage and transport  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  • during storage acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • PROFINET standard  • PROFINET standard  • PROFINET standard  • PROFINET standard  • PROFINED S   Type: Class J / L, max. 1200 A; lq = 30	<ul> <li>with conductor cross-section = 1.5 mm² maximum</li> </ul>	150 m
• for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid • for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at degrate the control circuit finely stranded with core end processing • at well cables for control circuit finely stranded with core end processing • at the digital inputs at AC maximum • between soft starter and motor maximum • at the digital inputs at AC maximum  tightening torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and	• with conductor cross-section = 2.5 mm² maximum	250 m
type of connectable conductor cross-sections  • for control circuit solid  • for control circuit finely stranded with core end processing  • at AWG cables for control circuit solid  • at AWG cables for control circuit finely stranded with core end processing  • at the digital inputs at AC maximum  • at the digital inputs at AC maximum  • for main contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type  terminals  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  • during storage acc. to IEC 60721  • during storage acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • PROFINET standard  • PROFI	type of connectable conductor cross-sections	
Section   Sect	_	
• for control circuit solid • for control circuit finely stranded with core end processing • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing  wire length • between soft starter and motor maximum • at the digital inputs at AC maximum  100 m  tightning torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  tightening torque [lbF:n] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  tightening torque [lbF:n] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  tightening torque [lbF:n] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  214 24 N·m 0.8 1.2 N·m 0.8 0		2x (70 240 mm²)
• for control circuit finely stranded with core end processing  • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing  wire length • between soft starter and motor maximum • at the digital inputs at AC maximum 100 m  tightening forque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  tightening torque [Ibf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  Amblent conditions installation at littude at height above sea level maximum amblent temperature • during operation • during operation • during operation acc. to IEC 60721 • during storage and transport • during storage acc. to IEC 60721 • Communication Module is supported • PROFINET standard • PROFINET standard • PROFINEU  ULCSA ratings  manufacturer's article number • of the fuse  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 30 kA		
e at AWG cables for control circuit solid e at AWG cables for control circuit solid e at AWG cables for control circuit finely stranded with core end processing  wire length e between soft starter and motor maximum between soft starter and motor maximum e at the digital inputs at AC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw		
eat ANG cables for control circuit finely stranded with core end processing  wire length  • between soft starter and motor maximum  • at the digital inputs at AC maximum  100 m  tightening torque  • for main contacts with screw-type terminals • for auxiliary and control contacts wi	processing	
core end processing  wire length		
between soft starter and motor maximum	core end processing	2x (24 16)
tightening torque  • for main contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for main contacts with screw-type terminals  • for main contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals	•	
tightening torque  • for main contacts with screw-type terminals  • for auxiliary and control ondensation, on probability and so for contacts with screw-type terminals  • for auxiliary and control on gent and so for contacts with screw-type terminals  • for auxiliary and control ondensation on gent and so for contacts with screw-type terminals  • for auxiliary and control on gent and so for contacts with screw-type terminals  • for auxiliary and control on gent and so for contacts with screw-type terminals  • for auxiliary and control on gent and so for contacts with		
• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  124 210 lbf-in  7 10.3 lbf-in  124 210 lbf-in  125 +60 °C; Please observe derating at temperatures of 40 °C or above  225 +60 °C; Please observe derating at temperatures of 40 °C or above  3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 352 (sand must not get inside the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 3S2 (sand must not get inside the devices), 3M6  1K6 (only occasional condensation), 1C2 (no salt mist), 3S2	at the digital inputs at AC maximum	100 m
• for auxiliary and control contacts with screw-type terminals  tightening torque [lbf-in]  • for main contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type terminals  • for auxiliary and control contacts with screw-type  • during tondition generators  • during storage and transport  • during operation  • during storage and transport  • during operation  • during storage and transport  • during storage and t	tightening torque	
tightening torque [lbf-in]  • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  Ambient conditions installation altitude at height above sea level maximum  ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721  adding storage acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  communication Protocol  communication module is supported • PROFINET standard • PROFINET standard • PROFINET standard • PROFIBUS  UL/CSA ratings  manufacturer's article number • of the fuse  — usable for Standard Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 100 KA		
• for main contacts with screw-type terminals     • for auxiliary and control contacts with screw-type terminals  Ambient conditions installation altitude at height above sea level maximum  ambient temperature     • during operation     • during storage and transport     • during storage and transport     • during operation acc. to IEC 60721     • during storage acc. to IEC 60721     • during storage acc. to IEC 60721     • during transport acc. to IEC 60721     • PROFINET standard     • PROFINET standard     • EtherNet/IP     • Modbus RTU     • Modbus RTU     • Modbus RTU     • Modbus RTU     • Modbus TCP     • PROFIBUS  UL/CSA ratings  manufacturer's article number     • of the fuse     — usable for Standard Faults up to 575/600 V     according to UL     — usable for High Faults up to 575/600 V     Type: Class J / L, max. 1200 A; Iq = 100 kA	* * * * * * * * * * * * * * * * * * * *	0.8 1.2 N·m
for auxiliary and control contacts with screw-type terminals  Amblent conditions installation altitude at height above sea level maximum  amblent temperature		
Ambient conditions  Installation alltitude at height above sea level maximum  ambient temperature  • during operation  • during storage and transport  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus RTU  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/GSA ratings  manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 100 kA		124 210 lbf·in
installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721  EMC emitted interference  communication module is supported • PROFINET standard • PROFINET standard • Rodobus RTU • Modbus RTU • PROFIBUS  UL/CSA ratings  manufacturer's article number • of the fuse  — usable for Standard Faults up to 575/600 V according to UL — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V Type: Class J / L, max. 1200 A; Iq = 100 kA	· · · · · · · · · · · · · · · · · · ·	7 10.3 lbf·in
ambient temperature  • during operation  • during storage and transport  • during storage and transport  • during operation acc. to IEC 60721  • during operation acc. to IEC 60721  • during storage acc. to IEC 60721  • during storage acc. to IEC 60721  • during storage acc. to IEC 60721  • during transport acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  • Communication/Protocol  communication module is supported  • PROFINET standard  • PROFINET standard  • Rodbus RTU  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA	Ambient conditions	
• during operation     • during storage and transport     • during storage and transport     • during operation acc. to IEC 60721     • during operation acc. to IEC 60721     • during storage acc. to IEC 60721     • during storage acc. to IEC 60721     • during transport acc. to IEC 60721     • during transport 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 the fuse     — usable for Standard Faults up to 575/600 V     — usable for High Faults up to 575/600 V     — usable for High Faults up to 575/600 V     Type: Class J / L, max. 1200 A; Iq = 100 kA	installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
above  -40 +80 °C  environmental category  - during operation acc. to IEC 60721  - during storage acc. to IEC 60721  - during transport acc. to IEC 60721  - during transport acc. to IEC 60721  - EMC emitted interference  - Communication Protocol  - Communication module is supported  - PROFINET standard  - PROFINET standard  - Modbus RTU  - Modbus RTU  - Modbus TCP  - PROFIBUS  - PROFIBUS  - UL/CSA ratings  - usable for Standard Faults up to 575/600 V  - according to UL  - usable for High Faults up to 575/600 V  - Type: Class J / L, max. 1600 A; Iq = 30 kA  - Type: Class J / L, max. 1200 A; Iq = 100 kA	ambient temperature	
environmental category  • during operation acc. to IEC 60721  • during storage 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  Tyes  • PROFIBUS   manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 100 kA	during operation	above
<ul> <li>during operation acc. to IEC 60721</li> <li>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</li> <li>during storage acc. to IEC 60721</li> <li>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</li> <li>during transport acc. to IEC 60721</li> <li>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</li> <li>EMC emitted interference</li> <li>acc. to IEC 60947-4-2: Class A</li> </ul> Communication/ Protocol <ul> <li>communication module is supported</li> <li>PROFINET standard</li> <li>EtherNet/IP</li> <li>Modbus RTU</li> <li>Modbus RTU</li> <li>PROFIBUS</li> <li>Yes</li> <li>PROFIBUS</li> <li>Yes</li> <li>UL/CSA ratings</li> </ul> manufacturer's article number <ul> <li>of the fuse</li> <li>— usable for Standard Faults up to 575/600 V</li> <li>according to UL</li> <li>— usable for High Faults up to 575/600 V</li> </ul> Type: Class J / L, max. 1600 A; Iq = 30 kA Type: Class J / L, max. 1200 A; Iq = 100 kA	during storage and transport	-40 +80 °C
mist), 3S2 (sand must not get into the devices), 3M6  • during storage acc. to IEC 60721  • during transport 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 the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 100 kA		
oduring transport acc. to IEC 60721  • during transport acc. to IEC 60721  EMC emitted interference  acc. to IEC 60947-4-2: Class A  Communication/ Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus RTU  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 100 kA	<ul> <li>during operation acc. to IEC 60721</li> </ul>	
EMC emitted interference  acc. to IEC 60947-4-2: Class A  Communication/ Protocol  communication module is supported  • PROFINET standard Yes  • EtherNet/IP Yes  • Modbus RTU Yes  • Modbus TCP Yes  • PROFIBUS Yes  UL/CSA ratings  manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA	<ul> <li>during storage acc. to IEC 60721</li> </ul>	
Communication/ Protocol  communication module is supported  • PROFINET standard Yes • EtherNet/IP Yes • Modbus RTU Yes • Modbus TCP Yes • PROFIBUS Yes  UL/CSA ratings  manufacturer's article number • of the fuse  — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 100 kA	during transport acc. to IEC 60721	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of the fuse  — usable for Standard Faults up to 575/600 V  according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA	EMC emitted interference	acc. to IEC 60947-4-2: Class A
<ul> <li>PROFINET standard</li> <li>EtherNet/IP</li> <li>Modbus RTU</li> <li>Modbus TCP</li> <li>Modbus TCP</li> <li>PROFIBUS</li> <li>Yes</li> <li>PROFIBUS</li> <li>Yes</li> <li>UL/CSA ratings</li> <li>manufacturer's article number</li> <li>of the fuse</li> <li>— usable for Standard Faults up to 575/600 V according to UL</li> <li>— usable for High Faults up to 575/600 V</li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	Communication/ Protocol	
<ul> <li>EtherNet/IP</li> <li>Modbus RTU</li> <li>Modbus TCP</li> <li>PROFIBUS</li> <li>Yes</li> <li>PROFIBUS</li> <li>Yes</li> <li>UL/CSA ratings</li> <li>manufacturer's article number</li> <li>of the fuse</li> <li>— usable for Standard Faults up to 575/600 V according to UL</li> <li>— usable for High Faults up to 575/600 V</li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	communication module is supported	
Modbus RTU  Modbus TCP  PROFIBUS  Yes  PROFIBUS   UL/CSA ratings  manufacturer's article number  of the fuse  — usable for Standard Faults up to 575/600 V according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 100 kA	<ul> <li>PROFINET standard</li> </ul>	Yes
Modbus TCP     PROFIBUS  Ves  UL/CSA ratings  manufacturer's article number      of the fuse      — usable for Standard Faults up to 575/600 V according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 100 kA	EtherNet/IP	Yes
● PROFIBUS  UL/CSA ratings  manufacturer's article number  ● of the fuse  — usable for Standard Faults up to 575/600 V according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1600 A; Iq = 30 kA  Type: Class J / L, max. 1200 A; Iq = 100 kA	Modbus RTU	Yes
<ul> <li>■ Of the fuse         <ul> <li>— usable for Standard Faults up to 575/600 V according to UL</li> <li>— usable for High Faults up to 575/600 V</li> </ul> </li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	Modbus TCP	Yes
<ul> <li>manufacturer's article number</li> <li>of the fuse         <ul> <li>usable for Standard Faults up to 575/600 V</li> <li>according to UL</li> <li>usable for High Faults up to 575/600 V</li> </ul> </li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	PROFIBUS	Yes
<ul> <li>of the fuse         <ul> <li>usable for Standard Faults up to 575/600 V</li> <li>usable for High Faults up to 575/600 V</li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> </ul> </li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	UL/CSA ratings	
<ul> <li>usable for Standard Faults up to 575/600 V</li> <li>usable for Standard Faults up to 575/600 V</li> <li>Type: Class J / L, max. 1600 A; Iq = 30 kA</li> <li>Type: Class J / L, max. 1200 A; Iq = 100 kA</li> </ul>	manufacturer's article number	
according to UL  — usable for High Faults up to 575/600 V  Type: Class J / L, max. 1200 A; Iq = 100 kA	of the fuse	
	according to UL	Type: Class J / L, max. 1600 A; Iq = 30 kA
according to UL	<ul> <li>usable for High Faults up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 1200 A; Iq = 100 kA

<ul> <li>usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 1600 A; Iq = 30 kA
<ul> <li>usable for High Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 1200 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
<ul> <li>at 200/208 V at 50 °C rated value</li> </ul>	150 hp
<ul> <li>at 220/230 V at 50 °C rated value</li> </ul>	200 hp
<ul> <li>at 460/480 V at 50 °C rated value</li> </ul>	400 hp
<ul> <li>at 200/208 V at inside-delta circuit at 50 °C rated value</li> </ul>	300 hp
<ul> <li>at 220/230 V at inside-delta circuit at 50 °C rated value</li> </ul>	350 hp
<ul> <li>at 460/480 V at inside-delta circuit at 50 °C rated value</li> </ul>	750 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front acc. to IEC 60529	IP00; IP20 with cover
touch protection on the front acc. 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

**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=3RW5248-2TC14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5248-2TC14

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-2TC14">https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-2TC14</a>

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=3RW5248-2TC14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

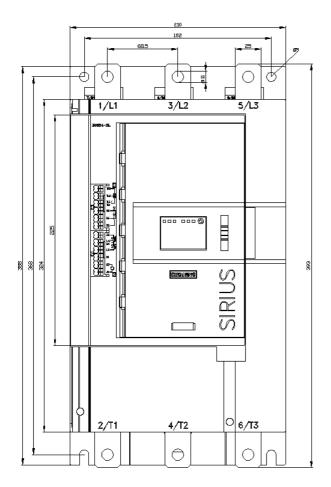
https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-2TC14/char

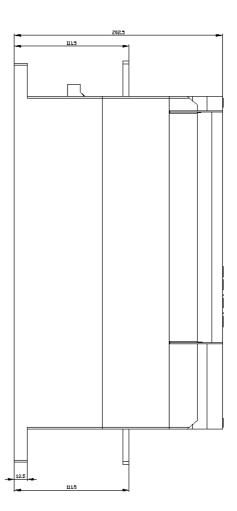
Characteristic: Installation altitude

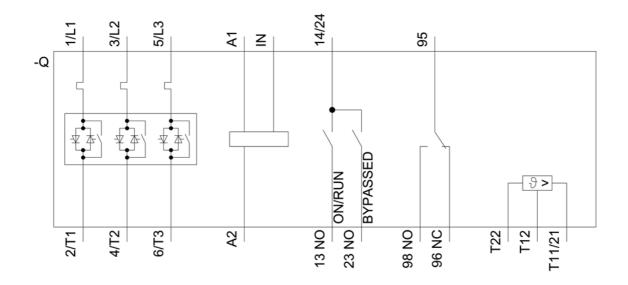
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5248-2TC14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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