SIEMENS

Data sheet

3RW5225-3AC05



SIRIUS soft starter 200-600 V 63 A, 24 V AC/DC spring-type terminals Analog output

product brand name	SIRIUS
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW52
manufacturer's article number	
 of standard HMI module usable 	<u>3RW5980-0HS00</u>
 of high feature HMI module usable 	<u>3RW5980-0HF00</u>
 of communication module PROFINET standard usable 	<u>3RW5980-0CS00</u>
 of communication module PROFIBUS usable 	<u>3RW5980-0CP00</u>
 of communication module Modbus TCP usable 	<u>3RW5980-0CT00</u>
 of communication module Modbus RTU usable 	<u>3RW5980-0CR00</u>
 of communication module Ethernet/IP 	<u>3RW5980-0CE00</u>
 of circuit breaker usable at 400 V 	3VA2163-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V 	3VA2163-7MN32-0AA0; Type of coordination 1, Iq = 20 kA, CLASS 10
 of circuit breaker usable at 400 V at inside-delta circuit 	3VA2110-7MN32-0AA0; Type of coordination 1. Iq = 65 kA. CLASS 10
 of circuit breaker usable at 500 V at inside-delta circuit 	3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 20 kA, CLASS 10
 of the gG fuse usable up to 690 V 	<u>3NA3830-6: Type of coordination 1. lq = 65 kA</u>
 of the gG fuse usable at inside-delta circuit up to 500 V 	<u>3NA3830-6; Type of coordination 1, Iq = 65 kA</u>
 of full range R fuse link for semiconductor protection usable up to 690 V 	<u>3NE1022-0; Type of coordination 2, Iq = 65 kA</u>
 of back-up R fuse link for semiconductor protection usable up to 690 V 	<u>3NE8024-1; Type of coordination 2, Iq = 65 kA</u>
eneral technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 50 %
start-up ramp time of soft starter	0 20 s
current limiting value [%] adjustable	130 700 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component is supported	
HMI-Standard	Yes
HMI-High Feature	Yes
product feature integrated bypass contact system	Yes

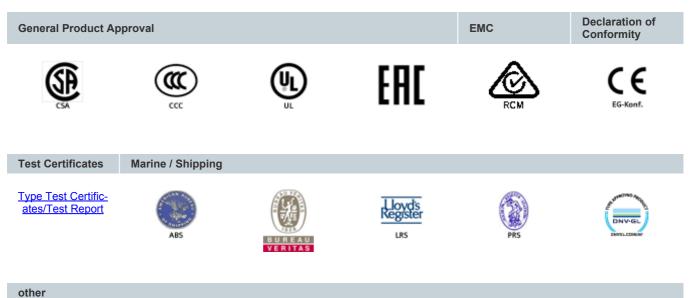
number of controlled phases	3
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	
for main current circuit	100 ms
for control circuit	100 ms
	600 V
insulation voltage rated value	
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 800 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	600.V/
between main and auxiliary circuit	
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	X
• ramp-up (soft starting)	Yes
 ramp-down (soft stop) 	Yes
Soft Torque	Yes
 adjustable current limitation 	Yes
 pump ramp down 	Yes
 intrinsic device protection 	Yes
 motor overload protection 	Yes; Electronic motor overload protection
 evaluation of thermistor motor protection 	No
 inside-delta circuit 	Yes
auto-RESET	Yes
manual RESET	Yes
remote reset	Yes; By turning off the control supply voltage
 communication function 	Yes
 operating measured value display 	Yes; Only in conjunction with special accessories
error logbook	Yes; Only in conjunction with special accessories
 via software parameterizable 	No
 via software configurable 	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication module
firmware update	Yes
 removable terminal for control circuit 	Yes
torque control	No
analog output	Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
Power Electronics	
operational current	
• at 40 °C rated value	63 A
• at 50 °C rated value	56 A
• at 60 °C rated value	51 A
operational current at inside-delta circuit	
• at 40 °C rated value	109 A
• at 50 °C rated value	96 A
• at 60 °C rated value	87.5 A
operating voltage	
rated value	200 600 V
• at inside-delta circuit rated value	200 600 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	
 at 230 V at 40 °C rated value 	18.5 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	30 kW
 at 400 V at 40 °C rated value 	30 kW
 at 400 V at inside-delta circuit at 40 °C rated value 	55 kW
 at 500 V at 40 °C rated value 	37 kW
 at 500 V at inside-delta circuit at 40 °C rated value 	55 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	
 at rotary coding switch on switch position 1 	25.5 A
 at rotary coding switch on switch position 2 	28 A
 at rotary coding switch on switch position 3 	30.5 A
 at rotary coding switch on switch position 4 	33 A
 at rotary coding switch on switch position 5 	35.5 A
• at rotary coding switch on switch position 6	38 A
 at rotary coding switch on switch position 7 	40.5 A
 at rotary coding switch on switch position 8 	43 A
 at rotary coding switch on switch position 9 	45.5 A
 at rotary coding switch on switch position 10 	48 A
 at rotary coding switch on switch position 11 	50.5 A
 at rotary coding switch on switch position 12 	53 A
• at rotary coding switch on switch position 13	55.5 A
 at rotary coding switch on switch position 14 	58 A
 at rotary coding switch on switch position 15 	60.5 A
 at rotary coding switch on switch position 16 	63 A
minimum	25.5 A
adjustable motor current	20.0 M
 for inside-delta circuit at rotary coding switch on switch position 1 	44.2 A
 for inside-delta circuit at rotary coding switch on switch position 2 	48.5 A
 for inside-delta circuit at rotary coding switch on switch position 3 	52.8 A
 for inside-delta circuit at rotary coding switch on switch position 4 	57.2 A
 for inside-delta circuit at rotary coding switch on switch position 5 	61.5 A
 for inside-delta circuit at rotary coding switch on switch position 6 	65.8 A
 for inside-delta circuit at rotary coding switch on switch position 7 	70.1 A
 for inside-delta circuit at rotary coding switch on switch position 8 	74.5 A
 for inside-delta circuit at rotary coding switch on switch position 9 	78.8 A
 for inside-delta circuit at rotary coding switch on switch position 10 for inside delta circuit at rotary coding switch on 	83.1 A
 for inside-delta circuit at rotary coding switch on switch position 11 for inside-delta circuit at rotary coding switch on 	91.8 A
 for inside-delta circuit at rotary coding switch on switch position 12 for inside-delta circuit at rotary coding switch on 	96.1 A
 for inside-delta circuit at rotary coding switch on for inside-delta circuit at rotary coding switch on 	100 A
 for inside-delta circuit at rotary coding switch on for inside-delta circuit at rotary coding switch on 	105 A
switch position 15	

 for inside-delta circuit at rotary coding switch on 	109 A
• for inside-delta circuit at rotary coding switch on switch position 16	109 A
at inside-delta circuit minimum	44.2 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	31 W
• at 50 °C after startup	29 W
• at 60 °C after startup	27 W
power loss [W] at AC at current limitation 350 %	2
• at 40 °C during startup	882 W
• at 50 °C during startup	744 W
• at 60 °C during startup	659 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	24 V
at 60 Hz rated value	24 V 24 V
relative negative tolerance of the control supply	-20 %
voltage at AC at 50 Hz	-20 %
relative positive tolerance of the control supply	20 %
voltage at AC at 50 Hz	
relative negative tolerance of the control supply voltage at AC at 60 Hz	-20 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	20 %
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 voltage	
at DC rated value	24 V
relative negative tolerance of the control supply voltage at DC	-20 %
relative positive tolerance of the control supply voltage at DC	20 %
control supply current in standby mode rated value	160 mA
holding current in bypass operation rated value	380 mA
locked-rotor current at close of bypass contact maximum	7.6 A
inrush current peak at application of control supply voltage maximum	3.3 A
duration of inrush current peak at application of control supply voltage	12.1 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply
Inputs/ Outputs	
number of digital inputs	1
number of inputs for thermistor connection	0
number of digital outputs	3
not parameterizable	2
digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	1
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	+/- 10° rotation possible and can be tilted forward or backward on
	vertical mounting surface
fastening method	screw fixing

width 185 mm depth 203 mm required spacing with side-by-side mounting 10 mm • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • downwards 75 mm • downwards 75 mm • downwards 75 mm • dor main current circuit 56 kg • for main current circuit box terminal • for main contacts for box terminal using the front cleanging point staraded 52 mm • for main contacts for box terminal using the front cleanging point staraded 1x (2.5 16 mm²) • for main contacts for box terminal using the front cleanging point staraded 1x (10 200) using the box cleans for box terminal using both contacts for box terminal using both core end processing. 2x (0 25 16 mm²) • for main contacts for box terminal using both core end processing. 2x (0 25 16 mm²) • for main contacts for box terminal using both core end proc	ight	 306 mm
required spacing with side-by-side mounting 10 mm • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • dor nain current circuit 56 kg Orne citol circuit spring-loaded terminals Vige of connectable conductor cross-sections 6 ro main contacts for box terminal using the front clamping point finely stranded with core end processing • for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (10 20) • of r main contacts for box terminal using both clamping points solid 1x (10 20) • of r main contacts for box terminal using both clamping points solid 1x (10 20) • of r main contacts for box terminal using both clamping points stranded with core end processing 2x (25 16 mm²) • of r main contacts for box terminal using both clamping points stranded with core end processing 2x (25 16 mm²) • of r main contacts for box terminal using both clamping points stranded with core end processing 2x (25 16 mm²) • of r main contacts for box terminal using both clamping points	-	
• forwards10 mm• backwards0 mm• upwards100 mm• downwards75 mm• downwards75 mm• at the side5 mmweight without packaging5.6 kgConnections I Terninalsbox terninaltype of electrical connectionbox terninal• for main current circuitbox terninal• for control circuitbox terninal• for control circuitspring-boaded terninalswitch of connection bar maximum25 mm• for main contacts for box terninal using the front clamping point stranded1x (2.5 16 mm²)• for main contacts for box terninal using the front clamping point stranded with core end processing1x (10 70 mm²)• for main contacts for box terninal using the back 	oth	203 mm
 backwards upwards downwards the side for main current circuit for main current circuit for main contacts for box terminal using the front clamping points sind for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the front clamping point sold for main contacts for box terminal using the back clamping point sold for main contacts for box terminal using the back clamping point sold for main contacts for box terminal using the back clamping points sold for main contacts for box terminal using both clamping points stranded for main contacts for box terminal using both clamping points stranded for main contacts for box terminal using both clamping points stranded for main contacts for box terminal using both clamping points stranded with core end processing for main contacts for box terminal using the back clamping point stranded for control circuit fanely stranded with core end processing for control circuit sold for control circuit sold for control circuit fanely stranded with core end processing for control circuit sold for control circuit fanely stranded with core end processing for control circuit fanely stranded with core end processing for control circuit fanely stranded with core end processing for control circuit fanely stranded with core end processing for control circuit fan	uired spacing with side-by-side mounting	
• upwards 100 mm • ot mis side 5 mm • of main current circuit 5.6 kg • for main current circuit box terminal • for main current circuit spring-loaded terminals • width of connection bar maximum 25 mm • for main contacts for box terminal using the front champing point solid type of econoctable conductor cross-sections • for main contacts for box terminal using the front champing point solid tx (2.5 16 mm²) • for main contacts for box terminal using the front champing point stranded with core end processing tx (10 70 mm²) • for main contacts for box terminal using the front champing point solid tx (10 70 mm²) • of main contacts for box terminal using the front champing point tx (10 20) • of main contacts for box terminal using the box champing point tx (10 20) • of main contacts for box terminal using both champing points stranded tx (10 20) • of main contacts for box terminal using both champing point solid tx (2.5 16 mm²) • for main contacts for box terminal using both champing point finely stranded with core end processing tx (10 20 mr²) • for main contacts for box terminal using the back champing point finely stranded with core end processing tx (10 50 mm²) • for main contacts for box terminal using the back champing point finely stranded with core end processing tx (10 50 mm²)	• forwards	10 mm
• downwards 75 mm • at the side 5 mm • weight without packaging 56 kg Connections/Terminals 50 kg • for main current circuit spring-loaded terminal • for main contacts for box terminal using the front clamping points fold tx (2.5 16 mm²) • for main contacts for box terminal using the front clamping point finely stranded with core end processing tx (10 20) • for main contacts for box terminal using the front clamping point finely stranded with core end processing point sold tx (10 20) • for main contacts for box terminal using the front clamping point sold tx (10 20) • for main contacts for box terminal using the back clamping point sold tx (10 20) • for main contacts for box terminal using the back clamping point sold tx (10 20) • for main contacts for box terminal using both clamping point sold tx (2.5 16 mm²) • for main contacts for box terminal using both clamping points sold tx (10 20) • for main contacts for box terminal using both clamping points sold with core end processing tx (10 20 mn²) • for main contacts for box terminal using both clamping points finely stranded with core end processing tx (10 50 mm²) • for control circuit finely stranded with core end processing tx (10 70 mm²) • for control circuit finely stranded with core end processing tx (10 15 mm²)	backwards	0 mm
• at the side 5 mm weight without packaging 5.6 kg Connection 1/ forminals 5.6 kg type of electrical connection 5 main contacts for box terminal spring-loaded terminals • for main contacts for box terminal using the front clamping point solid 25 mm • for main contacts for box terminal using the front clamping point solid 1x (2.5 16 mm²) • for main contacts for box terminal using the front clamping point solid 1x (10 70 mm²) • for main contacts for box terminal using the front clamping point standed with core end processing 1x (10 70 mm²) • for main contacts for box terminal using the back clamping points stranded with core end processing 1x (10 70 mm²) • for main contacts for box terminal using both clamping points for box terminal using the back clamping points for box terminal using the back clamping point finely stranded with core end processing 2x (6 16 mm²) • for main contacts for box terminal using the back clamping point finely stranded with core end processing 2x (25 mm²) • for main contacts for box terminal using the back clamping point finely stranded with core end processing 2x (0 .25 15 mm²) • for c	• upwards	100 mm
weight without packaging 5.6 kg Connections/ formals type of electrical connection • for main current circuit box terminal • for ontrol circuit box terminal • for main contacts for box terminal using the front champing point solid 1x (2.5 16 mm²) • for main contacts for box terminal using the front champing point forly stranded with core end processing 1x (2.5 50 mm²) • for main contacts for box terminal using the front champing point solid 1x (10 70 mm²) • at AWC cables for main contacts for box terminal using the back clamping points olid 1x (10 20) • at AWC cables for box terminal using the back clamping points for box terminal using both clamping points for box terminal using the back clamping point finely stranded with core end processing 2x (2.5 16 mm²) • for main contacts for box terminal using the back clamping point finely stranded with core end processing 2x (0.25 15 mm²) • for control circuit finely stranded with core end processing 2x (0.25 15 mm²) • for axin	•	75 mm
Connections/Terminals type of electrical connection • for main contacts for box terminal using the front champing point solid • for main contacts for box terminal using the front champing point solid • for main contacts for box terminal using the front champing point solid • for main contacts for box terminal using the front champing point solid • for main contacts for box terminal using the front champing point solid • at AWG cables for box terminal using the box champing point solid • at AWG cables for box terminal using the back champing point solid • at AWG cables for box terminal using both champing point solid • for main contacts for box terminal using both champing point solid • for main contacts for box terminal using both champing points stranded • for main contacts for box terminal using both champing point stranded • for main contacts for box terminal using both champing point stranded • for main contacts for box terminal using both champing point stranded • for main contacts for box terminal using the back champing point stranded • for main contacts for box terminal using the back champing point stranded • for control circuit solid	• at the side	5 mm
Connections/Terminals type of connection current circuit • for main contacts for box terminal using the front clamping points solid • for main contacts for box terminal using the front clamping point solid • of main contacts for box terminal using the front clamping point solid • of main contacts for box terminal using the front clamping point solid • of main contacts for box terminal using the front clamping point solid • at AWG cables for box terminal using the back clamping point solid • at AWG cables for box terminal using the back clamping point solid • at AWG cables for box terminal using both clamping point solid • at AWG cables for box terminal using both clamping points solid • for main contacts for box terminal using both clamping points stranded • for main contacts for box terminal using both clamping points stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using back clamping point stranded	ight without packaging	5.6 kg
• for main current circuit • for control circuit • for control circuit • for control circuit • for main contects for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point forely stranded with core end processing • for main contacts for box terminal using the front clamping point contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the foot clamping point solid • for wain contacts for box terminal using the back clamping point solid • for main contacts for box terminal using the front clamping point • for main contacts for box terminal using the back clamping point • for main contacts for box terminal using the back clamping point • for main contacts for box terminal using both clamping point solid • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using the back clamping point solid • for or main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using the back clamping point stranded • for or main contacts for box terminal using the back clamping point stranded • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing	nections/ Terminals	
• for main current circuit • for control circuit • for control circuit • for control circuit • for main contects for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point forely stranded with core end processing • for main contacts for box terminal using the front clamping point contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the foot clamping point solid • for wain contacts for box terminal using the back clamping point solid • for main contacts for box terminal using the front clamping point • for main contacts for box terminal using the back clamping point • for main contacts for box terminal using the back clamping point • for main contacts for box terminal using both clamping point solid • for main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using the back clamping point solid • for or main contacts for box terminal using both clamping point stranded • for main contacts for box terminal using the back clamping point stranded • for or main contacts for box terminal using the back clamping point stranded • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing	e of electrical connection	
• for control circuit spring-loaded terminals vidth of connectable conductor cross-sections command the processing • for main contacts for box terminal using the front clamping point shanded 1x (2.5 50 mm ³) • for main contacts for box terminal using the front clamping point shanded 1x (10 70 mm ³) • for main contacts for box terminal using the front clamping point shanded 1x (10 70 mm ³) • at AWG cables for main contacts for box terminal using the back clamping point shanded 1x (10 20) • for main contacts for box terminal using the back clamping point shanded 1x (10 20) • for main contacts for box terminal using bath clamping points sold 2x (2.5 16 mm ³) • for main contacts for box terminal using bath clamping points firely stranded with core end processing 2x (2.5 35 mm ³) • for main contacts for box terminal using bath clamping points firely stranded with core end processing 1x (10 70 mm ³) • for main contacts for box terminal using bath clamping point firely stranded with core end processing 1x (10 70 mm ³) • for main contacts for box terminal using the back clamping point firely stranded with core end processing 1x (10 70 mm ³) • for main contacts for box terminal using the back clamping point firely stranded with core end processing 2x (0.25 1.5 mm ³) • f		box terminal
width of connectable conductor cross-sections25 mmtype of connectable conductor cross-sections(in main contacts for box terminal using the front clamping point finely stranded with core end processing(in main contacts for box terminal using the front clamping point finely stranded with core end processing(in main contacts for box terminal using the front clamping point finely stranded with core end processing(in main contacts for box terminal using the front clamping point(in main contacts for box terminal using the front clamping point(in main contacts for box terminal using the back clamping point(in main contacts for box terminal using the back clamping point(in main contacts for box terminal using the back clamping point(in main contacts for box terminal using the back clamping point(in main contacts for box terminal using the back clamping points stranded(in main contacts for box terminal using the back clamping points stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts for box terminal using the back clamping point stranded with core end processing(in main contacts with screw-type transi<		
• for main contacts for box terminal using the front clamping point solid 1x (2.5 16 mm²) • for main contacts for box terminal using the front clamping point stranded 1x (2.5 50 mm²) • for main contacts for box terminal using the front clamping point stranded 1x (10 70 mm²) • at AWG cables for main contacts for box terminal using the back clamping point solid 1x (10 2/0) • at AWG cables for main contacts for box terminal using the back clamping point solid 1x (2.5 16 mm²) • at AWG cables for main contacts for box terminal using the back clamping point solid 1x (2.5 16 mm²) • for main contacts for box terminal using both clamping points stranded with core end processing 2x (2.5 35 mm²) • for main contacts for box terminal using both clamping point stranded with core end processing 2x (0.25 16 mm²), 2x (10 50 mm²) • for main contacts for box terminal using the back clamping point stranded 1x (10 70 mm²) • for main contacts for box terminal using the back clamping point stranded 1x (10 70 mm²) • for main contacts for box terminal using the back clamping point stranded 1x (10 70 mm²) • for control circuit solid 2x (0.25 15 mm²) • for control circuit solid 2x (0.25 15 mm²) • for control circuit solid 2x (0.25 15 mm²) • for control circuit finely stranded	Ith of connection bar maximum	
• for main contacts for box terminal using the front clamping point solid1x (2.5 16 mm²)• for main contacts for box terminal using the front clamping point stranded1x (2.5 50 mm²)• at AWG cables for main contacts for box terminal using the front clamping point1x (10 70 mm²)• at AWG cables for main contacts for box terminal using the front clamping point1x (2.5 16 mm²)• for main contacts for box terminal using the back clamping point solid1x (10 2/0)• at AWG cables for main contacts for box terminal using the back clamping point1x (10 2/0)• for main contacts for box terminal using both clamping points solid2x (2.5 16 mm²)• for main contacts for box terminal using both clamping points finely stranded with core end processing2x (2.5 35 mm²)• for main contacts for box terminal using both clamping point finely stranded with core end processing2x (0.25 15 mm²)• for main contacts for box terminal using the back clamping point finely stranded with core end processing1x (10 70 mm²)• for control circuit finely stranded with core end processing2x (0.25 15 mm²)• for control circuit finely stranded with core end processing2x (0.25 15 mm²)• for control circuit finely stranded with core end processing2x (0.25 15 mm²)• for control circuit finely stranded with core end processing2x (0.25 15 mm²)• for control circuit solid2x (0.25 15 mm²)• at AWG cables for control circuit solid2x (0.25 15 mm²)• at AWG cables for control circuit solid2x (24 16) <td>e of connectable conductor cross-sections</td> <td></td>	e of connectable conductor cross-sections	
clamping point finely stranded with core end processing*********************************	 for main contacts for box terminal using the front 	1x (2.5 16 mm²)
clamping point strandedIx (10 2/0)• at AWG cables for main contacts for box terminal using the font clamping point1x (10 2/0)• for main contacts for box terminal using the back clamping point1x (10 2/0)• for main contacts for box terminal using the back clamping points sold1x (10 2/0)• for main contacts for box terminal using points sold2x (2.5 16 mm²)• for main contacts for box terminal using both clamping points sold2x (2.5 35 mm²)• for main contacts for box terminal using both clamping point finely stranded with core end processing2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using both clamping point finely stranded with core end processing1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 15 mm²)• for control circuit solid2x (0.25 15 mm²)• for control circuit finely stranded with core end processing2x (24 16)• for control circuit finely stranded with core end processing2x (0.25 15 mm²)• for control circuit finely stranded with core end processing2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing300 m• at the digital inputs at AC maximum1000 m• at the digital inputs at DC maximum4.5 6 N·m <tr< td=""><td>clamping point finely stranded with core end</td><td>1x (2.5 50 mm²)</td></tr<>	clamping point finely stranded with core end	1x (2.5 50 mm²)
using the front clamping point1x (2.5 16 mm²)• for main contacts for box terminal using the back clamping point solid1x (10 2/0)• for main contacts for box terminal using both clamping points solid1x (10 2/0)• for main contacts for box terminal using both clamping points solid2x (2.5 16 mm²)• for main contacts for box terminal using both clamping points finely stranded with core end processing2x (2.5 35 mm²)• for main contacts for box terminal using both clamping point stranded2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using both clamping point stranded1x (2.5 50 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (2.4 16)• for control circuit finely stranded with core end processing2x (2.4 16)• at AWG cables for control circuit finely stranded with core end processing800 m• at AWG cables for control circuit finely stranded with core end processing1000 m• at AWG cables for control circuit finely stranded with core end processing1000 m• at the digital inputs at AC maximum1000 m• at the digital inputs at AC maximum40 53 lof ·in• for auxiliary and control contacts with screw-type terminals40 53 lof ·in• for auxiliary and control contacts with screw-type40 53 lof ·in </td <td></td> <td>1x (10 70 mm²)</td>		1x (10 70 mm²)
clamping point solid1x (10 2/0)• at AWG cables for main contacts for box terminal using the back clamping points1x (10 2/0)• for main contacts for box terminal using both clamping points is solid2x (2.5 16 mm²)• for main contacts for box terminal using both clamping points finely stranded with core end processing2x (2.5 35 mm²)• for main contacts for box terminal using both clamping points finely stranded2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using both clamping point sinely stranded with core end processing1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (2.4 16)• for control circuit finely stranded with core end processing2x (2.4 16)• for control circuit finely stranded with core end processing2x (2.4 16)• at AWG cables for control circuit finely stranded with core end processing2x (2.4 16)• at AWG cables for control circuit finely stranded with core end processing800 m• at the digital inputs at AC maximum • at the digital inputs at DC maximum100 m• at the digital inputs at DC maximum • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals4.5 6 N·m 0.8 1.2 N·m• for main contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type40 53 lbf-in 7 10.3 lbf-in </td <td></td> <td>1x (10 2/0)</td>		1x (10 2/0)
using the back clamping pointZx (2.5 16 mm²)• for main contacts for box terminal using both clamping points finely stranded with core end processing2x (2.5 35 mm²)• for main contacts for box terminal using both clamping point stranded2x (2.5 35 mm²)• for main contacts for box terminal using both clamping point stranded2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using the back clamping point finely stranded with core end processing1x (2.5 50 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for onain contacts for box terminal using the back clamping point finely stranded with core end processing2x (0.25 1.5 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (24 16)• for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• at AWG cables for control circuit finely stranded with core end processing800 m• at the digital inputs at AC maximum800 m• between soft starter and motor maximum • at the digital inputs at DC maximum800 m• tightening torque • for main contacts with screw-type terminals4.5 6 N·m 0.8 1.2 N·m• for auxiliary and control contacts with screw-type terminals40 53 lbf·in• for auxiliary and control contacts with screw-type terminals40 53 lbf·in	clamping point solid	
clamping points solid2x (2.5 35 mm²)• for main contacts for box terminal using both clamping points finely stranded with core end processing2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using both clamping point stranded2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using the back clamping point finely stranded with core end processing1x (2.5 50 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (24 16)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit solid2x (24 16)• between soft starter and motor maximum • at the digital inputs at AC maximum800 m• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals40 53 lbf-in	using the back clamping point	1x (10 2/0)
clamping points finely stranded with core end processing2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using both clamping point stranded2x (6 16 mm²), 2x (10 50 mm²)• for main contacts for box terminal using the back clamping point finely stranded with core end processing1x (2.5 50 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit finely stranded with core end processing2x (0.25 1.5 mm²)• for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• between soft starter and motor maximum • at the digital inputs at AC maximum800 m• at the digital inputs at AC maximum100 m• at the digital inputs at AC maximum0.8 1.2 N·m• for main contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals0.8 1.2 N·m	clamping points solid	
clamping points strandedIx (2.5 50 mm²)• for main contacts for box terminal using the back clamping point finely stranded with core end processing1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit finely stranded with core end processing2x (0.25 1.5 mm²)• for control circuit finely stranded with core end processing2x (2.25 1.5 mm²)• at AWG cables for control circuit solid core end processing2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• at the digital inputs at AC maximum • at the digital inputs at AC maximum800 m• for main contacts with screw-type terminals1 000 m• for main contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals0.8 1.2 N·m• for auxiliary and control contacts with screw-type40 53 lbf·in• for auxiliary and control contacts with screw-type7 10.3 lbf·in	clamping points finely stranded with core end	2x (2.5 35 mm²)
clamping point finely stranded with core end processing1x (10 70 mm²)• for main contacts for box terminal using the back clamping point stranded1x (10 70 mm²)type of connectable conductor cross-sections2x (0.25 1.5 mm²)• for control circuit solid2x (0.25 1.5 mm²)• for control circuit finely stranded with core end processing2x (0.25 1.5 mm²)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• between soft starter and motor maximum • between soft starter and motor maximum800 m• at the digital inputs at AC maximum100 m• at the digital inputs at DC maximum100 m• for auxiliary and control contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals6.8 1.2 N·m• for main contacts with screw-type terminals40 53 lbf in• for auxiliary and control contacts with screw-type7 10.3 lbf in		2x (6 16 mm²), 2x (10 50 mm²)
clamping point strandedview of connectable conductor cross-sections• for control circuit solid2x (0.25 1.5 mm²)• for control circuit finely stranded with core end processing2x (0.25 1.5 mm²)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)wire length800 m• between soft starter and motor maximum800 m• at the digital inputs at AC maximum100 m• at the digital inputs at DC maximum1 000 m• for main contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals40 53 lbf·in• for main contacts with screw-type terminals40 53 lbf·in	clamping point finely stranded with core end	1x (2.5 50 mm²)
 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 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 wire length between soft starter and motor maximum at the digital inputs at AC maximum at the digital inputs at AC maximum at the digital inputs at DC maximum for main contacts with screw-type terminals for auxiliary and control contacts with screw-type for main contacts with screw-type terminals for main contacts with screw-type terminals for auxiliary and control contacts with screw-type 		1x (10 70 mm²)
• for control circuit finely stranded with core end processing2x (0.25 1.5 mm²)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)wire length2x (24 16)• between soft starter and motor maximum800 m• at the digital inputs at AC maximum100 m• at the digital inputs at DC maximum100 m• at the digital inputs at DC maximum100 m• for main contacts with screw-type terminals4.5 6 N·m• for main contacts with screw-type terminals0.8 1.2 N·m• for main contacts with screw-type terminals40 53 lbf·in• for auxiliary and control contacts with screw-type7 10.3 lbf·in	e of connectable conductor cross-sections	
processing2x (24 16)• at AWG cables for control circuit solid2x (24 16)• at AWG cables for control circuit finely stranded with core end processing2x (24 16)wire length800 m• between soft starter and motor maximum800 m• at the digital inputs at AC maximum100 m• at the digital inputs at DC maximum1 000 m• at the digital inputs at DC maximum1 000 m• for main contacts with screw-type terminals4.5 6 N·m• for auxiliary and control contacts with screw-type terminals0.8 1.2 N·m• for main contacts with screw-type terminals40 53 lbf·in• for auxiliary and control contacts with screw-type7 10.3 lbf·in	for control circuit solid	2x (0.25 1.5 mm²)
 at AWG cables for control circuit finely stranded with core end processing 2x (24 16) 2x (24 16) wire length between soft starter and motor maximum at the digital inputs at AC maximum at the digital inputs at DC maximum at the digital inputs at DC maximum 1000 m tightening torque 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 		2x (0.25 1.5 mm²)
wire length 800 m • 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 4.5 6 N·m • for main contacts with screw-type terminals 4.5 6 N·m • for auxiliary and control contacts with screw-type 0.8 1.2 N·m tightening torque [lbf·in] 40 53 lbf·in • for main contacts with screw-type terminals 40 53 lbf·in	• at AWG cables for control circuit finely stranded with	
 between soft starter and motor maximum at the digital inputs at AC maximum at the digital inputs at DC maximum 100 m tightening torque 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 for auxiliary and control contacts with screw-type for auxiliary and control contacts with screw-type 		
 at the digital inputs at AC maximum at the digital inputs at DC maximum 100 m tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type tightening torque [lbf·in] for main contacts with screw-type terminals for main contacts with screw-type terminals 40 53 lbf·in for auxiliary and control contacts with screw-type for auxiliary and control contacts with screw-type 	-	800 m
• at the digital inputs at DC maximum1 000 mtightening torque4.5 6 N·m• for main contacts with screw-type terminals0.8 1.2 N·mtightening torque [lbf·in]0.8 1.2 N·m• for main contacts with screw-type terminals40 53 lbf·in• for auxiliary and control contacts with screw-type7 10.3 lbf·in		
tightening torque 4.5 6 N·m • for main contacts with screw-type terminals 4.5 6 N·m • for auxiliary and control contacts with screw-type terminals 0.8 1.2 N·m tightening torque [lbf·in] 40 53 lbf·in • for auxiliary and control contacts with screw-type terminals 40 53 lbf·in		
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 7 10.3 lbf·in		
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 7 10.3 lbf·in		4.5 6 N·m
 for main contacts with screw-type terminals for auxiliary and control contacts with screw-type 7 10.3 lbf·in 	• for auxiliary and control contacts with screw-type	0.8 1.2 N·m
 for main contacts with screw-type terminals for auxiliary and control contacts with screw-type 7 10.3 lbf·in 	htening torque [lbf·in]	
• for auxiliary and control contacts with screw-type 7 10.3 lbf in	 for main contacts with screw-type terminals 	40 53 lbf·in
terminals	• for auxiliary and control contacts with screw-type	7 10.3 lbf·in
Ambient conditions	ient conditions	
installation altitude at height above sea level maximum 5 000 m; Derating as of 1000 m, see catalog		5 000 m; Derating as of 1000 m, see catalog

ambient temperature	
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or
	above
 during storage and transport 	-40 +80 °C
environmental category	
• during operation acc. to IEC 60721	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• during storage acc. to IEC 60721	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
 during transport acc. to IEC 60721 	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
EMC emitted interference	acc. to IEC 60947-4-2: Class A
Communication/ Protocol	
communication module is supported	
PROFINET standard	Yes
• EtherNet/IP	Yes
Modbus RTU	Yes
	Yes
Modbus TCP	
PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
 — usable for Standard Faults at 460/480 V according to UL 	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 125 A; lq = 10 kA
 — usable for High Faults at 460/480 V according to UL 	Siemens type: 3VA51, max. 125 A; lq max = 65 kA
 — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL 	Siemens type: 3VA51, max. 125 A; Iq = 10 kA
 — usable for High Faults at 460/480 V at inside- delta circuit according to UL 	Siemens type: 3VA51, max. 125 A; lq max = 65 kA
 — usable for Standard Faults at 575/600 V according to UL 	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 125 A; Iq = 10 kA
 — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL 	Siemens type: 3VA51, max. 125 A; lq = 10 kA
 of the fuse 	
 — usable for Standard Faults up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 200 A; lq = 10 kA
 — usable for High Faults up to 575/600 V according to UL 	Type: Class J / L, max. 225 A; Iq = 100 kA
 — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 200 A; lq = 10 kA
 — usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 225 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
 at 200/208 V at 50 °C rated value 	15 hp
 at 220/230 V at 50 °C rated value 	20 hp
 at 460/480 V at 50 °C rated value 	40 hp
 at 575/600 V at 50 °C rated value 	50 hp
 at 200/208 V at inside-delta circuit at 50 °C rated value 	30 hp
 at 220/230 V at inside-delta circuit at 50 °C rated value 	30 hp
 at 460/480 V at inside-delta circuit at 50 °C rated value 	75 hp
 at 575/600 V at inside-delta circuit at 50 °C rated value 	75 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	

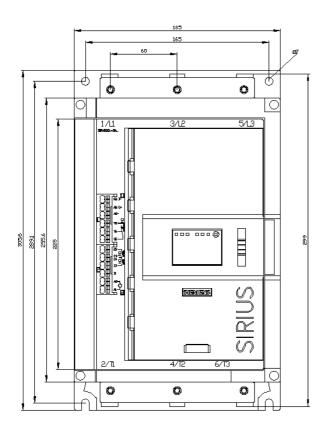


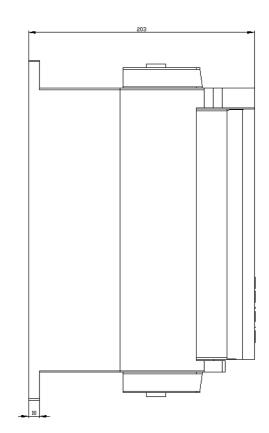
Confirmation

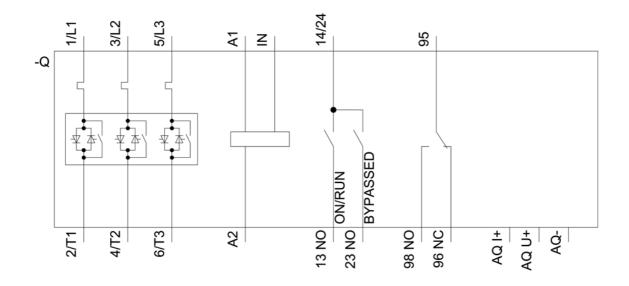
Further information

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=3RW5225-3AC05 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5225-3AC05 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW5225-3AC05 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5225-3AC05&lang=en Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RW5225-3AC05/char Characteristic: Installation altitude http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5225-3AC05&objecttype=14&gridview=view1 Simulation Tool for Soft Starters (STS)

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







last modified:

8/10/2021 🖸