SIEMENS

Data sheet 3RW5225-1AC04



SIRIUS soft starter 200-480 V 63 A, 24 V AC/DC Screw terminals Analog output

product brand name product category product designation product type designation manufacturer's article number

- of standard HMI module usable
- of high feature HMI module usable
- of communication module PROFINET standard usable
- of communication module PROFIBUS usable
- of communication module Modbus TCP usable
- of communication module Modbus RTU usable
- of communication module Ethernet/IP
- of circuit breaker usable at 400 V
- of circuit breaker usable at 500 V
- of circuit breaker usable at 400 V at inside-delta circuit
- of circuit breaker usable at 500 V at inside-delta circuit
- of the gG fuse usable up to 690 V
- of the gG fuse usable at inside-delta circuit up to 500 V
- \bullet of full range R fuse link for semiconductor protection usable up to 690 V
- of back-up R fuse link for semiconductor protection usable up to 690 V

SIRIUS

Hybrid switching devices

Soft starter

3RW52

3RW5980-0HS00

3RW5980-0HF00

3RW5980-0CS00

3RW5980-0CP00

3RW5980-0CT00

3RW5980-0CR00 3RW5980-0CE00

3VA2163-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10

<u>3VA2163-7MN32-0AA0</u>; Type of coordination 1, Iq = 20 kA, CLASS 10

3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10

3VA2110-7MN32-0AA0; Type of coordination 1, Iq = 20 kA, CLASS 10

3NA3830-6; Type of coordination 1, Iq = 65 kA

3NA3830-6; Type of coordination 1, Iq = 65 kA

3NE1022-0; Type of coordination 2, Iq = 65 kA

3NE8024-1; Type of coordination 2, Iq = 65 kA

General technical data

starting voltage [%] stopping voltage [%] start-up ramp time of soft starter current limiting value [%] adjustable certificate of suitability

- CE marking
- UL approval
- CSA approval

product component

- HMI-High Feature
- is supported HMI-Standard
- is supported HMI-High Feature

product feature integrated bypass contact system number of controlled phases

trip class

buffering time in the event of power failure

30 ... 100 %

50 %; non-adjustable

0 ... 20 s

130 ... 700 %

Yes

Yes

Yes

No

Yes

Yes

Yes

3

CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2

for main current circuit	100 ms
for control circuit	100 ms
insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 400 V
service factor	1
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 according to IEC 60947-4-2	AC 53a
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	02/15/2018
product function	V
• ramp-up (soft starting)	Yes
• ramp-down (soft stop)	Yes
Soft Torque	Yes
adjustable current limitation a numb rame days.	Yes
pump ramp down intrinsis dovide protection	Yes
intrinsic device protection meter everland protection	Yes
motor overload protection evaluation of thermister meter protection	Yes; Electronic motor overload protection No
evaluation of thermistor motor protection incide delta circuit	Yes
 inside-delta circuit 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
	Yes: in connection with the PROFINET Standard communication
PROFlenergy	res, in connection with the PROFINET Standard communication
PROFlenergy	module
• firmware update	,
-	module
 firmware update removable terminal for control circuit torque control 	module Yes Yes No
firmware update removable terminal for control circuit	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature
 firmware update removable terminal for control circuit torque control analog output 	module Yes Yes No
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
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• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value operational current at inside-delta circuit • at 50 °C rated value • at 50 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 60 °C rated value • at 60 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value operational current at inside-delta circuit • at 50 °C rated value • at 50 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A
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firmware update removable terminal for control circuit torque control analog output Power Electronics operational current at 40 °C rated value at 50 °C rated value at 60 °C rated value operational current at inside-delta circuit at 40 °C rated value at 50 °C rated value at 50 °C rated value at 60 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A
firmware update removable terminal for control circuit torque control analog output Power Electronics operational current at 40 °C rated value at 50 °C rated value at 60 °C rated value operational current at inside-delta circuit at 40 °C rated value operational current at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value at inside-delta circuit rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A 200 480 V 200 480 V
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• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A 200 480 V 200 480 V -15 % 10 % -15 %
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A 200 480 V 200 480 V -15 % 10 % -15 % 10 % 18.5 kW 30 kW
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value operating voltage • rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A 200 480 V 200 480 V -15 % 10 % -15 % 10 % 18.5 kW 30 kW 30 kW
• firmware update • removable terminal for control circuit • torque control • analog output Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value	module Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) 63 A 55.5 A 50.5 A 109 A 96 A 87.5 A 200 480 V 200 480 V -15 % 10 % -15 % 10 % 18.5 kW 30 kW

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 at rotary coding switch on switch position 13 	53 A 55.5 A
at rotary coding switch on switch position 13 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 at rotary coding switch on switch position 16	63 A
minimum	25.5 A
adjustable motor current	
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 for inside-delta circuit at rotary coding switch on 	70.1 A 74.5 A
switch position 8 • for inside-delta circuit at rotary coding switch on	78.8 A
switch position 9 • for inside-delta circuit at rotary coding switch on	83.1 A
switch position 10 • for inside-delta circuit at rotary coding switch on	87.5 A
switch position 11 • for inside-delta circuit at rotary coding switch on	91.8 A
switch position 12 • for inside-delta circuit at rotary coding switch on	96.1 A
switch position 13 • for inside-delta circuit at rotary coding switch on	100 A
switch position 14for inside-delta circuit at rotary coding switch on	105 A
switch position 15 for inside-delta circuit at rotary coding switch on switch and the second second switch and the second seco	109 A
switch position 16	44.2.4
at inside-delta circuit minimum minimum load [9/1]	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 %	
• 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 60 Hz rated value at 60 Hz rated value		
relative negative tolerance of the control supply voltage at AG at 50 Hz relative positive tolerance of the control supply voltage at AG at 60 Hz relative negative tolerance of the control supply voltage at AG at 60 Hz voltage fraquency control supply voltage fraquency control supply voltage realtive negative tolerance of the control supply voltage realtive negative tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative positive tolerance of the control supply voltage at 60 C relative tolerance of the control supply voltage at 60 C relative tolerance of the control supply voltage at 60 C relative tolerance of the control supply voltage at 60 C relative toleranc	 at 50 Hz rated value 	24 V
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voltage at AC at 50 Hz relative negative tolerance of the control supply voltage at AC at 60 Hz relative positive tolerance of the control supply voltage at AC at 60 Hz relative negative tolerance of the control supply voltage frequency relative negative tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply voltage at CC at 30 Hz at CC 10 AC 30		-20 %
voltage at AC at 60 Hz relative positive tolerance of the control supply voltage at AC at 60 Hz relative negative tolerance of the control supply voltage frequency relative negative tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage at AC at 60 Hz relative positive tolerance of the control supply voltage frequency control supply voltage at AC at data relative negative tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative positive tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the control supply voltage at AC relative negative tolerance of the c		20 %
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relative negative tolerance of the control supply voltage (requency relative positive tolerance of the control supply voltage (requency control supply voltage) • at ID C rated value relative negative tolerance of the control supply voltage (and to the control supply voltage) • at ID C rated value relative negative tolerance of the control supply voltage (and to the control supply voltage) • at ID C rated value holding current in standby mode rated value holding current in bypass operation rated value holding current peak at application of control supply voltage and rate of the overvoltage protection design of short-circuit protection for control circuit **Caristor** **Inputs/Outputs** **Inputs/Outputs/Outputs/Outputs/Outputs/Outputs/		20 %
relative negative tolerance of the control supply voltage (requency relative positive tolerance of the control supply voltage (requency control supply voltage) • at ID C rated value relative negative tolerance of the control supply voltage (and to the control supply voltage) • at ID C rated value relative negative tolerance of the control supply voltage (and to the control supply voltage) • at ID C rated value holding current in standby mode rated value holding current in bypass operation rated value holding current peak at application of control supply voltage and rate of the overvoltage protection design of short-circuit protection for control circuit **Caristor** **Inputs/Outputs** **Inputs/Outputs/Outputs/Outputs/Outputs/Outputs/	control supply voltage frequency	50 60 Hz
voltage frequency control supply voltage a tt DC rated value relative negative tolerance of the control supply voltage at DC relative positive tolerance of the control supply voltage at DC control supply current in standby mode rated value including current in bypass operation of control supply voltage reaximum duration of inclusif current peak at application of control supply voltage design of the overvoltage protection design of short-circuit protection for control circuit including of short-circuit breaker (icu= 300 A); is not part of scope of supply inputs/ Outputs number of digital inputs number of digital inputs number of digital inputs number of digital outputs a not parameterizable gigital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value 1 A Installation/ mounting/ dimensions mounting position fastening method height width depth convards backwards upwards of main current circuit for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2,5 50 mm²) 1x (2,5 50 mm²)	relative negative tolerance of the control supply	-10 %
a the Crated value relative negative tolerance of the control supply voltage at DC relative positive tolerance of the control supply voltage at DC control supply control in standby mode rated value holding current in bypass operation rated value insufficient in bypass operation of control supply voltage maximum duration of insufficient protection design of short-circuit protection for control circuit design of short-circuit protection for control circuit design of short-circuit protection for control circuit and part of scope of supply Inputs/ Outputs Inputs/ Outputs/ Outputs Inputs/ Outputs/ Outputs/ Outputs Inputs/ Outputs/ Outputs/ Outputs Inputs/ Outputs/		10 %
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voltage at DC control supply current in standby mode rated value holding current in bypass operation rated value insus current peak at application of control supply voltage maximum duration of insush current peak at application of control supply voltage design of the overvottage protection design of short-circuit protection for control circuit inputs/ Outputs number of digital inputs number of digital inputs number of digital inputs • not parameterizable digital output version number of analog outputs • not parameterizable digital output version number of analog outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value • at DC-13 at 24 V rated value • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value • at DC-13 at 24 V rated value • at DC-13 at 250 V rated value • at DC-13 at 250 V rate		
holding current in bypass operation rated value inrush current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection design of short-circuit protection for control circuit assign of short-circuit protection for part of scope of supply Inputs/ Outputs Inputs/ Outputs/ Inputs/ Outputs/ Inputs/ Input		20 %
inrush current peak at application of control supply voltage maximum duration or inrush current peak at application of control supply voltage design of the overvoltage protection design of the overvoltage protection design of the overvoltage protection design of short-circuit protection for control circuit 4 A gG fuse (Icu= 1 kA), 6 A quick-acting fuse (Icu= 1 kA), C1 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply Inputs/ Outputs Imputs/ Outputs Imputs of digital inputs		
duration of inrush current peak at application of control supply voltage design of the overvoltage protection design of the overvoltage protection for control circuit design of short-circuit protection for control circuit circuit breaker (Icu= 600 A). CB miniature circuit breaker (Icu= 300 A); Is not part of scope of supply Inputs/ Outputs Inputs/ Outputs number of digital outputs		
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design of short-circuit protection for control circuit riputs/ Outputs number of digital inputs number of digital outputs • not parameterizable digital output version number of analog outputs • at A 2 G x y x y x y x y x y x y x y x y x y x	supply voltage	12.1 ms
Inputs/ Outputs Inputs/ Output Inputs/	5 .	
Inputs/ Outputs number of digital inputs number of digital outputs • not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position **-/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface screw fixing height 306 mm depth capacity spacing with side-by-side mounting • forwards • backwards • oupwards • oupwards • oupwards • oupwards • outpurs outpurs • at the side • of main contacts for box terminal using the front clamping point side • for connectable conductor cross-sections • for main contacts for box terminal using the front clamping point fixed • for main contacts for box terminal using the front clamping point fixed • for main contacts for box terminal using the front clamping point fixed in the side and the side	design of short-circuit protection for control circuit	
number of digital inputs number of digital outputs onto parameterizable digital output version number of analog outputs switching capacity current of the relay outputs of at AC-15 at 250 V rated value of at AC-15 at 250 V rated value of at AC-15 at 250 V rated value of at C-13 at 24 V rated value of at C-13 at 24 V rated value of at AC-15 at 250 V rated value of at C-13 at 24 V rated value of at C-13 at 24 V rated value of at C-13 at 24 V rated value of at C-13 at 24 V rated value of astening method of screw fixing		
number of digital outputs	Inputs/ Outputs	
number of digital outputs	number of digital inputs	1
digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value **Installation/ mounting/ dimensions **mounting position** **mounting position** **mounting position** **mounting position** ***# 10° rotation possible and can be tilted forward or backward on vertical mounting surface screw fixing 306 mm 4/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface screw fixing 306 mm **step of spacing with side-by-side mounting** **forwards** **o pure of spacing with side-by-side mounting** **forwards** **o pure of spacing with side-by-side mounting** **formards** **formards** **formards** **formarids** **type of electrical connection **for main current circuit** **for control circuit** **for control circuit** **screw-type terminals** **type of connectable conductor cross-sections* **for main contacts for box terminal using the front clamping point solid **formaricontacts for box terminal using the front clamping point finely stranded with core end processing** **Total Connection on the relay output of the relay		3
number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position **	 not parameterizable 	2
switching capacity current of the relay outputs at AC-15 at 250 V rated value to at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position fastening method height width depth vidth depth vidth bischwards bisc	digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
at AC-15 at 250 V rated value at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position +/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface screw fixing along method height width depth 203 mm required spacing with side-by-side mounting forwards backwards backw	number of analog outputs	1
at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position ##- 10° rotation possible and can be tilted forward or backward on vertical mounting surface screw fixing 306 mm 485 mm 496 mm 496 mm 496 mm 497 mm 498 mm 49		
mounting position		
## In the state of		1 A
fastening method height width depth required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side weight without packaging connections/ Terminals type of electrical connection • for main current circuit • for connectable conductor cross-sections • for main contacts for box terminal using the front clamping point finely stranded with core end processing vertical mounting surface screw fixing screw fixing 306 mm 185 mm 00 mm 10	<u> </u>	
fastening method height width depth 185 mm 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • upwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit width of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point finely stranded with core end processing screw fixing 306 mm 108 mm 108 mm 109 mm 100 mm 1	mounting position	
height width depth 185 mm 203 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • downwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing	fastening method	
width depth 203 mm required spacing with side-by-side mounting • forwards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 5.6 kg Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals width of connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing	3	<u> </u>
depth 203 mm required spacing with side-by-side mounting 10 mm • forwards 0 mm • backwards 100 mm • upwards 75 mm • downwards 5 mm • at the side 5 mm weight without packaging 5.6 kg Connections/ Terminals type of electrical connection box terminal • for main current circuit screw-type terminals width of connection bar maximum 25 mm type of connectable conductor cross-sections 1x (2.5 16 mm²) • for main contacts for box terminal using the front clamping point solid 1x (2.5 50 mm²) • for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 50 mm²)	5	
 forwards backwards upwards downwards at the side 5 mm weight without packaging 5.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit for control circuit width of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 10 mm box terminal screw-type terminals xcrew-type terminals 1x (2.5 16 mm²) 1x (2.5 16 mm²) 1x (2.5 50 mm²) 	depth	203 mm
 backwards upwards downwards at the side 5 mm weight without packaging 5.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit for control circuit screw-type terminals width of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 16 mm²) 1x (2.5 50 mm²) 	required spacing with side-by-side mounting	
 upwards downwards at the side 5 mm weight without packaging 5.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals width of connection bar maximum type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 100 mm 5 mm 5 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²) 1x (2.5 50 mm²) 1x (2.5 50 mm²)	forwards	10 mm
 downwards at the side b mm 5 mm 5.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals width of connection bar maximum type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 16 mm²) 1x (2.5 50 mm²) 	backwards	0 mm
 at the side weight without packaging 5.6 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit for connection bar maximum type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 	• upwards	100 mm
weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit width of connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing 5.6 kg box terminal screw-type terminals 25 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²)		
type of electrical connection • for main current circuit • for control circuit • for connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing type of electrical connection box terminal screw-type terminals 25 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²)		
type of electrical connection • for main current circuit • for control circuit • for connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing box terminal screw-type terminals 25 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²)		5.6 Kg
 for main current circuit for control circuit width of connection bar maximum type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing box terminal screw-type terminals 25 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²) 		
 for control circuit width of connection bar maximum type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for 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 		
width of connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing 25 mm 1x (2.5 16 mm²) 1x (2.5 50 mm²)		
 type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 16 mm²) 1x (2.5 50 mm²) 	• IOF CONTROL CITCUIT	screw-type terminals
 for main contacts for box terminal using the front clamping point solid for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 16 mm²) 1x (2.5 50 mm²) 		25 mm
clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 50 mm²)	width of connection bar maximum	25 mm
 for main contacts for box terminal using the front clamping point finely stranded with core end processing 1x (2.5 50 mm²) 	width of connection bar maximum type of connectable conductor cross-sections	
	width of connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front	
	width of connection bar maximum type of connectable conductor cross-sections • for main contacts for box terminal using the front clamping point solid • for main contacts for box terminal using the front clamping point finely stranded with core end	1x (2.5 16 mm²)

clamping point stranded • at AWG cables for main contacts for box terminal	1 × (10 2(0)
using the front clamping point	1x (10 2/0)
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	1x (10 2/0)
 for main contacts for box terminal using both clamping points solid 	2x (2.5 16 mm²)
 for main contacts for box terminal using both clamping points finely stranded with core end processing 	2x (2.5 35 mm²)
 for main contacts for box terminal using both clamping points stranded 	2x (6 16 mm²), 2x (10 50 mm²)
 for main contacts for box terminal using the back clamping point finely stranded with core end processing 	1x (2.5 50 mm²)
 for main contacts for box terminal using the back clamping point stranded 	1x (10 70 mm²)
type of connectable conductor cross-sections	
 for control circuit solid 	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
 for control circuit finely stranded with core end 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
processing	
 at AWG cables for control circuit solid 	1x (20 12), 2x (20 14)
wire length	
between soft starter and motor maximum	800 m
at the digital inputs at AC maximum	100 m
at the digital inputs at DC maximum	1 000 m
tightening torque	45 011
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]	
for main contacts with screw-type terminals	40 53 lbf·in
for auxiliary and control contacts with screw-type terminals	7 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	o ooo m, bording do or rooo m, occ odding
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or
aumig opolation	above
 during storage and transport 	-40 +80 °C
environmental category	
 during operation according 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 according to IEC 60721 	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
during transport according 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
Modbus TCP	Yes
PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
 usable for Standard Faults at 460/480 V 	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 125 A; Iq = 10 kA
according to UL	
 usable for High Faults at 460/480 V according to UL 	Siemens type: 3VA51, max. 125 A; Iq 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; Iq max = 65 kA

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

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

of the fuse

— usable for Standard Faults up to 575/600 V according to UL $\,$

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

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

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

operating power [hp] for 3-phase motors

• at 200/208 V at 50 °C rated value

• at 220/230 V at 50 °C rated value

• at 460/480 V at 50 °C rated value

• at 200/208 V at inside-delta circuit at 50 °C rated value

 \bullet at 220/230 V at inside-delta circuit at 50 $^{\circ}\text{C}$ rated value

• at 460/480 V at inside-delta circuit at 50 °C rated value

contact rating of auxiliary contacts according to UL

Siemens type: 3RV2742, max. 70 A or 3VA51, max. 125 A; Iq = 10 kA

Siemens type: 3VA51, max. 125 A; Iq = 10 kA

Type: Class RK5 / K5, max. 200 A; Iq = 10 kA

Type: Class J / L, max. 225 A; Iq = 100 kA

Type: Class RK5 / K5, max. 200 A; Iq = 10 kA

Type: Class J / L, max. 225 A; Iq = 100 kA

15 hp

20 hp

40 hp

30 hp

30 hp

75 hp

R300-B300

Safety related data

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529 electromagnetic compatibility

IP00; IP20 with cover

finger-safe, for vertical contact from the front with cover in accordance with IEC 60947-4-2

Certificates/ approvals

General Product Approval

EMC



Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

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=3RW5225-1AC04

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5225-1AC04}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5225-1AC04

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5225-1AC04&lang=en

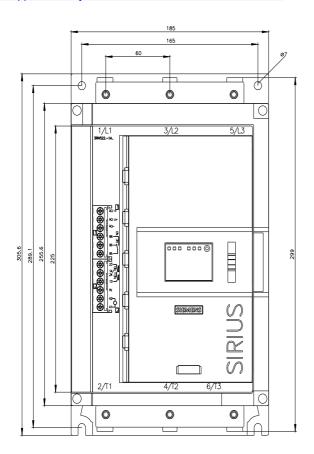
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RW5225-1AC04/char

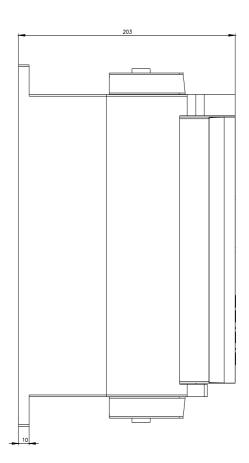
Characteristic: Installation altitude

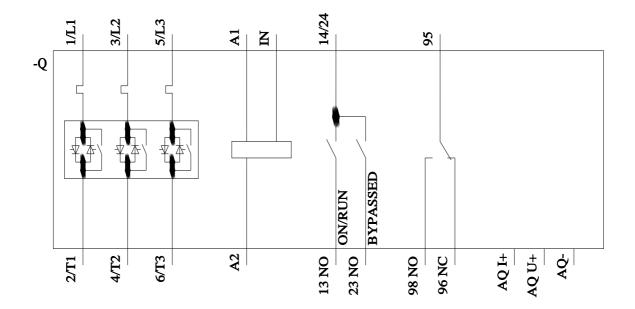
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5225-1AC04&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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