SIEMENS

product brand name

3RW5236-6AC05 **Data sheet**

SIRIUS



SIRIUS soft starter 200-600 V 171 A, 24 V AC/DC Screw terminals Analog output

product Static flamo	
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW52
manufacturer's article number	
 of standard HMI module usable 	3RW5980-0HS00
of high feature HMI module usable	3RW5980-0HF00
 of communication module PROFINET standard usable 	3RW5980-0CS00
 of communication module PROFIBUS usable 	3RW5980-0CP00
 of communication module Modbus TCP usable 	3RW5980-0CT00
 of communication module Modbus RTU usable 	3RW5980-0CR00
 of communication module Ethernet/IP 	3RW5980-0CE00
 of circuit breaker usable at 400 V 	3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 30 kA, CLASS 10
 of circuit breaker usable at 500 V 	3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 30 kA, CLASS 10
• of circuit breaker usable at 500 V at inside-delta circuit	3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10
 of the gG fuse usable up to 690 V 	3NA3365-6; Type of coordination 1, Iq = 65 kA
• of the gG fuse usable at inside-delta circuit up to 500 V	3NA3365-6; Type of coordination 1, Iq = 65 kA
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NE1230-0; Type of coordination 2, Iq = 65 kA
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3NE3335; Type of coordination 2, Iq = 65 kA
eneral technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 20 s
current limiting value [%] adjustable	130 700 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component	
HMI-High Feature	No
• is supported HMI-Standard	Yes
• is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	3
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	
for main current circuit	100 ms
for control circuit	100 ms

insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 800 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
 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	
• 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 	171 A
at 50 °C rated value	153 A
at 60 °C rated value	141 A
operational current at inside-delta circuit	
 at 40 °C rated value 	296 A
• at 50 °C rated value	265 A
at 60 °C rated value	244 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 inside-delta circuit	-15 %
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	45 kW
• at 230 V at inside-delta circuit at 40 °C rated value	90 kW
 at 400 V at 40 °C rated value 	90 kW
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value 	90 kW 160 kW

	TO 11
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 	81 A
 at rotary coding switch on switch position 2 	87 A
 at rotary coding switch on switch position 3 	93 A
 at rotary coding switch on switch position 4 	99 A
 at rotary coding switch on switch position 5 	105 A
 at rotary coding switch on switch position 6 	111 A
 at rotary coding switch on switch position 7 	117 A
 at rotary coding switch on switch position 8 	123 A
 at rotary coding switch on switch position 9 	129 A
 at rotary coding switch on switch position 10 	135 A
 at rotary coding switch on switch position 11 	141 A
 at rotary coding switch on switch position 12 	147 A
 at rotary coding switch on switch position 13 	153 A
at rotary coding switch on switch position 14	159 A
at rotary coding switch on switch position 15	165 A
at rotary coding switch on switch position 16	171 A
• minimum	81 A
adjustable motor current	
for inside-delta circuit at rotary coding switch on switch position 1	140 A
 for inside-delta circuit at rotary coding switch on switch position 2 	151 A
 for inside-delta circuit at rotary coding switch on switch position 3 	161 A
 for inside-delta circuit at rotary coding switch on switch position 4 	171 A
 for inside-delta circuit at rotary coding switch on switch position 5 	182 A
for inside-delta circuit at rotary coding switch on switch position 6 for inside delta size if at rotary coding switch on switch and	192 A 203 A
 for inside-delta circuit at rotary coding switch on switch position 7 for inside-delta circuit at rotary coding switch on switch 	213 A
position 8 • for inside-delta circuit at rotary coding switch on switch	223 A
position 9 • for inside-delta circuit at rotary coding switch on switch	234 A
position 10 • for inside-delta circuit at rotary coding switch on switch	244 A
for inside-delta circuit at rotary coding switch on switch	255 A
 position 12 for inside-delta circuit at rotary coding switch on switch position 13 	265 A
for inside-delta circuit at rotary coding switch on switch position 14	275 A
 for inside-delta circuit at rotary coding switch on switch position 15 	286 A
 for inside-delta circuit at rotary coding switch on switch position 16 	296 A
at inside-delta circuit minimum	140 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	63 W
• at 50 °C after startup	58 W
at 60 °C after startup	54 W
power loss [W] at AC at current limitation 350 %	
• at 40 °C during startup	2 405 W
at 50 °C during startup	2 037 W
 at 60 °C during startup 	1 826 W

Control singuist Control	
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
relative negative tolerance of the control supply voltage at AC at 50 Hz	-20 %
relative positive tolerance of the control supply voltage at AC at 50 Hz	20 %
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
inrush current by closing the bypass contacts 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 digital inputs	3
	3 2
not parameterizable digital output variants	
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	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing
height	306 mm
width	185 mm
depth	203 mm
required spacing with side-by-side mounting	
• forwards	10 mm
• backwards	0 mm
• upwards	100 mm
downwards	75 mm
at the side	5 mm
weight without packaging	7.15 kg
- C	- J
Connections/ Terminals	
Connections/ Terminals type of electrical connection	
	busbar connection
type of electrical connection	busbar connection screw-type terminals
type of electrical connection • for main current circuit	
type of electrical connection	screw-type terminals

 for DIN cable lug for main contacts stranded 	2x (16 95 mm²)
for DIN cable lug for main contacts finely stranded	2x (25 120 mm²)
type of connectable conductor cross-sections	
for control circuit solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
 for control circuit finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
for 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	
 for main contacts with screw-type terminals 	10 14 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	89 124 lbf-in
for auxiliary and control contacts with screw-type	7 10.3 lbf·in
terminals	7 10.3 IDI'III
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
during storage and transport	-40 +80 °C
environmental category	
 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 according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
— usable for High Faults at 460/480 V according to UL	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA
 usable for Standard Faults at 460/480 V at inside- delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
 usable for High Faults at 460/480 V at inside-delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq max = 65 kA
 usable for Standard Faults at 575/600 V according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
 usable for Standard Faults at 575/600 V at inside- delta circuit according to UL 	Siemens type: 3VA52, max. 250 A; Iq = 10 kA
• of the fuse	
 usable for Standard Faults up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 400 A; Iq = 10 kA
— usable for High Faults up to 575/600 V according to UL	Type: Class J / L, max. 350 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. 400 A; Iq = 10 kA
 usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 350 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
• at 200/208 V at 50 °C rated value	50 hp
• at 220/230 V at 50 °C rated value	50 hp
 at 460/480 V at 50 °C rated value 	100 hp

 at 575/600 V at 50 °C rated value 	150 hp	
 at 200/208 V at inside-delta circuit at 50 °C rated value 	75 hp	
 at 220/230 V at inside-delta circuit at 50 °C rated value 	100 hp	
 at 460/480 V at inside-delta circuit at 50 °C rated value 	200 hp	
• at 575/600 V at inside-delta circuit at 50 °C rated value	250 hp	
contact rating of auxiliary contacts according to UL	R300-B300	
Safety related data		
protection class IP on the front according to IEC 60529	IP00; IP20 with cover	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover	
electromagnetic compatibility	in accordance with IEC 60947-4-2	
Certificates/ approvals		

General Product Approval







Confirmation







Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other



Confirmation

Further information

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

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

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

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

Information on the packaging

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

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5236-6AC05

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5236-6AC05}}$

 ${\bf Service \& Support\ (Manuals,\ Certificates,\ Characteristics,\ FAQs,...)}$

https://support.industry.siemens.com/cs/ww/en/ps/3RW5236-6AC05

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5236-6AC05&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

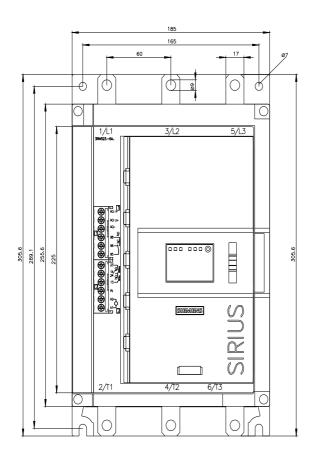
https://support.industry.siemens.com/cs/ww/en/ps/3RW5236-6AC05/char

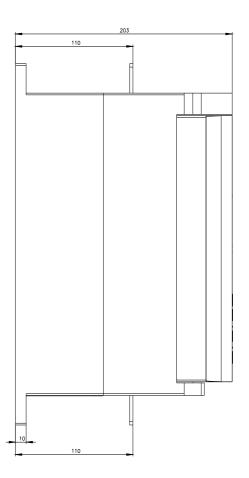
Characteristic: Installation altitude

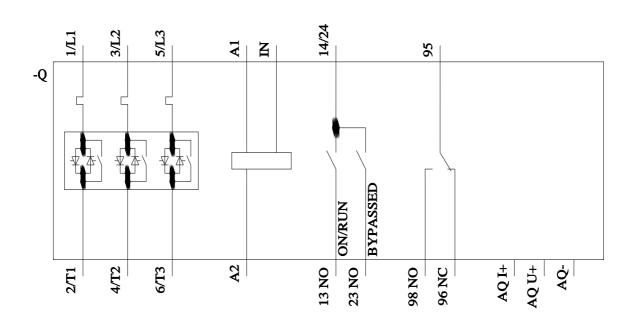
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5236-6AC05&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







last modified: 1/14/2023 🖸

