## **SIEMENS**

Data sheet 3RW5556-6HA14

**SIRIUS** 



SIRIUS soft starter 200-480 V 1100 A, 110-250 V AC Screw terminals

Figure similar

product brand name

product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW55
manufacturer's article number	
<ul> <li>of high feature HMI module usable</li> </ul>	3RW5980-0HF00
<ul> <li>of communication module PROFINET standard usable</li> </ul>	3RW5980-0CS00
<ul> <li>of communication module PROFINET high-feature usable</li> </ul>	3RW5950-0CH00
<ul> <li>of communication module PROFIBUS usable</li> </ul>	3RW5980-0CP00
<ul> <li>of communication module Modbus TCP usable</li> </ul>	3RW5980-0CT00
<ul> <li>of communication module Modbus RTU usable</li> </ul>	3RW5980-0CR00
<ul> <li>of communication module Ethernet/IP</li> </ul>	3RW5980-0CE00
<ul> <li>of circuit breaker usable at 400 V</li> </ul>	3VA2716-7AB05-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V</li> </ul>	3VA2716-7AB05-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of the gG fuse usable up to 690 V</li> </ul>	3x3NA3365-6; Type of coordination 1, Iq = 65 kA
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NB3354-1KK26; Type of coordination 2, Iq = 65 kA
<ul> <li>of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3x3NE3340-8; Type of coordination 2, Iq = 65 kA
General technical data	
starting voltage [%]	20 100 %
stopping voltage [%]	50 50 %
start-up ramp time of soft starter	0 360 s
ramp-down time of soft starter	0 360 s
start torque [%]	10 100 %
stopping torque [%]	10 100 %
torque limitation [%]	20 200 %
current limiting value [%] adjustable	125 800 %
breakaway voltage [%] adjustable	40 100 %
breakaway time adjustable	0 2 s
number of parameter sets	3
accuracy class acc. to IEC 61557-12	5 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes

# HMH-High Feature # Yes # Supported HMH-High Feature # Yes		_
e is supported HMI-High Feature Product feature integrated bypass contact system number of controlled phases  19 class  10 class 10A / 10E (default) / 20E / 30E; sect. to IEC 60947-4-2  10 closs   1	product component	
product feature integrated bypass contact system number of controlled phases 3 CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2 current unbalance limiting value [%] ground-fault monitoring limiting value [%] frecovery time after overload trip adjustable buffering time in the event of power failure  • for main current circuit • for main adjustable • for main current circuit • for main adjustable • for main current circuit • for main curre	3	
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• for control circuit   100 ms	•	
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degree of pollution   3, acc. to IEC 60947-4-2     Impulse voltage rated value   6 kV		
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Diocking voltage of the thyristor maximum   1,400 V		
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surge voltage resistance rated value maximum permissible voltage for safe isolation between main and auxiliary circuit 480 V; does not apply for thermistor connection utilization category acc. to IEC 60947-4-2 AC 53a shock resistance 15 g/11 ms, from 6 g/11 ms with potential contact lifting vibration resistance 15 mm up to 6 Hz; 2 g up to 500 Hz  reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 11.02 2019 00:00:00  ramp-up (soft starting) • ramp-up (soft starting) • ramp-down (soft stop) • ramp-down (soft stop) • ramp-down (soft stop) • ramp-down (soft stop) • read-way pulse • adjustable current limitation • creep speed in both directions of rotation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • intrinsic device protection • motor overload protection • motor overload protection • motor overload protection • motor overload protection • initrinsic device protection • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • remote reset • communication function • operating measured value display • ves • event list • error logbook • vis software parameterizable • via software parameterizable • via software configurable • via software parameterizable • via software parameterizable • via software configurable • screw terminal • PROFlenergy • firmware update		
maximum permissible voltage for safe isolation  • between main and auxiliary circuit  480 V; does not apply for thermistor connection  utilization category acc. to IEC 60947-4-2  shock resistance  15 g / 11 ms, from 6 g / 11 ms with potential contact lifting  vibration resistance  15 mm up to 6 Hz; 2 g up to 500 Hz  reference code acc. to IEC 81346-2  Q  Substance Prohibitance (Date)  11.02.2019 00:00:00  • ramp-down (soft storing)  • ramp-down (soft storing)  • ramp-down (soft storing)  • ramp-down (soft storing)  • product function  • ramp-up (soft starting)  • ramp-down (soft storing)  • product function (Pes  • adjustable current limitation (Pes  • adjustable current limitation (Pes  • creep speed in both directions of rotation (Pes  • pump ramp down (Pes  • DC braking (Pes  • slave pointer function (Pes  • slave pointer function (Pes  • intrinsic device protection (Pes  • motor overload protection (Pes  • motor overload protection (Pes  • motor overload protection (Pes  • ramp-up (soft starting) (Pes  • ramp-down (soft storing) (Pes  •		
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Substance Prohibitance (Date)   The product function   Framp-up (soft starting)   Yes   Framp-down (soft storp)   Yes   Yes   Framp-down (soft storp)   Yes   Ye	vibration resistance	15 mm up to 6 Hz; 2 g up to 500 Hz
product function  • ramp-up (soft starting) • ramp-up (soft starting) • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection) • motor overload protection • motor overload protection) • motor overload protection (thermistor motor protection according to ATEX, an upstream contactor is required in inside-delta circuit. • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • reset or Klixon / Thermoclick • required in inside-delta circuit  • evaluation of thermistor motor protection • reset • remote reset • reset • communication function • reset • remote reset • reset • communication function • reset • communication function • reset • remote reset • remote reset • reset • communication function • reset • remote reset • re	reference code acc. to IEC 81346-2	Q
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oreep speed in both directions of rotation     pump ramp down     Yes     DC braking     motor heating     slave pointer function     trace function     intrinsic device protection     motor overload protection     motor overload protection     motor overload protection     wealuation of thermistor motor protection     inside-delta circuit     evaluation of thermistor motor protection     inside-delta circuit     auto-RESET     manual RESET     manual RESET     remote reset     communication function     operating measured value display     event list     event list     event list     event of software parameterizable     via software parameterizable     screw terminal     spring-type terminal     PROFlenergy     firmware update      ves     v	<ul><li>breakaway pulse</li></ul>	Yes
<ul> <li>pump ramp down</li> <li>DC braking</li> <li>motor heating</li> <li>slave pointer function</li> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>motor overload protection</li> <li>motor overload protection</li> <li>yes</li> <li>motor overload protection</li> <li>Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.</li> <li>evaluation of thermistor motor protection</li> <li>yes; Type A PTC or Klixon / Thermoclick</li> <li>inside-delta circuit</li> <li>yes</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>yes</li> <li>communication function</li> <li>yes</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>preotupe terminal<!--</th--><th><ul> <li>adjustable current limitation</li> </ul></th><th>Yes</th></li></ul>	<ul> <li>adjustable current limitation</li> </ul>	Yes
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<ul> <li>motor heating</li> <li>slave pointer function</li> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>event list</li> <li>yes</li> <li>orror logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>yes</li> </ul>	<ul><li>pump ramp down</li></ul>	Yes
<ul> <li>slave pointer function</li> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)</li> <li>westpand protection</li> <li>Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)</li> <li>westpand protection</li> <li>evaluation of thermistor motor protection</li> <li>evaluation of thermistor motor protection</li> <li>yes; Type A PTC or Klixon / Thermoclick</li> <li>inside-delta circuit</li> <li>yes</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>event list</li> <li>yes</li> <li>event list</li> <li>yes</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>yes</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> </ul>	<ul> <li>DC braking</li> </ul>	Yes
<ul> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>Yes</li> <li>yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.</li> <li>evaluation of thermistor motor protection</li> <li>yes; Type A PTC or Klixon / Thermoclick</li> <li>inside-delta circuit</li> <li>yes</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> </ul> Yes <ul> <li>firmware update</li> </ul>	<ul><li>motor heating</li></ul>	Yes
<ul> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>inside-delta circuit</li> <li>yes</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> </ul> Yes <ul> <li>yes</li> <li>firmware update</li> </ul>	<ul> <li>slave pointer function</li> </ul>	Yes
<ul> <li>motor overload protection</li> <li>Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> </ul> Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit Yes <	trace function	Yes
motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit  • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • manual RESET • remote reset • communication function • operating measured value display • event list • error logbook • via software parameterizable • via software configurable • screw terminal • spring-type terminal • PROFlenergy • firmware update  motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit  Yes; Type A PTC or Klixon / Thermoclick  Yes  * yes  * yes  * yes  • ves  • ves  • ves  • ves  • ves  • ves  • via verification of the motor overload protection in scale and circuit.  Yes  • ves  • ves  • ves  • ves  • via verification of the motor overload protection in scale and circuit.  * ves  • ves  • ves  • ves  • via verification of the misside-delta circuit.  Yes  • ves	<ul> <li>intrinsic device protection</li> </ul>	Yes
<ul> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	motor overload protection	motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta
<ul> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Tenders</li> <li>Yes</li> </ul>	<ul> <li>evaluation of thermistor motor protection</li> </ul>	Yes; Type A PTC or Klixon / Thermoclick
<ul> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Testure communication modules</li> <li>Yes</li> </ul>	• inside-delta circuit	Yes
<ul> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	auto-RESET	Yes
<ul> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> </ul> Yes <ul> <li>Yes</li> </ul>	manual RESET	Yes
<ul> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> </ul> Yes <ul> <li>Yes</li> <li>Yes</li> <li>Some connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	• remote reset	Yes
<ul> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFIenergy</li> <li>firmware update</li> </ul> Yes <ul> <li>Yes</li> </ul>	<ul> <li>communication function</li> </ul>	Yes
<ul> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFIenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	<ul> <li>operating measured value display</li> </ul>	Yes
<ul> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	<ul><li>event list</li></ul>	Yes
<ul> <li>via software configurable</li> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>No</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	<ul> <li>error logbook</li> </ul>	Yes
<ul> <li>screw terminal</li> <li>spring-type terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	<ul> <li>via software parameterizable</li> </ul>	Yes
<ul> <li>spring-type terminal</li> <li>PROFIenergy</li> <li>firmware update</li> <li>No</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>Yes</li> </ul>	<ul> <li>via software configurable</li> </ul>	Yes
<ul> <li>PROFlenergy</li> <li>Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules</li> <li>Yes</li> </ul>	• screw terminal	Yes
Feature communication modules  • firmware update  Yes	<ul> <li>spring-type terminal</li> </ul>	No
		Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules
• removable terminal for control circuit  Yes	• firmware update	Yes
	<ul> <li>removable terminal for control circuit</li> </ul>	Yes

<ul> <li>voltage ramp</li> </ul>	Yes
<ul> <li>torque control</li> </ul>	Yes
<ul><li>combined braking</li></ul>	Yes
<ul> <li>analog output</li> </ul>	Yes; 4 20 mA (default) / 0 10 V
<ul> <li>programmable control inputs/outputs</li> </ul>	Yes
<ul> <li>condition monitoring</li> </ul>	Yes
<ul> <li>automatic parameterisation</li> </ul>	Yes
<ul> <li>application wizards</li> </ul>	Yes
alternative run-down	Yes
emergency operation mode	Yes
reversing operation	Yes
<ul> <li>soft starting at heavy starting conditions</li> </ul>	Yes
Power Electronics	
operational current	
at 40 °C rated value	1 100 A
<ul> <li>at 40 °C rated value minimum</li> </ul>	220 A
• at 50 °C rated value	979 A
• at 60 °C rated value	890 A
operational current at inside-delta circuit	
at 40 °C rated value	1 905 A
at 50 °C rated value	1 695 A
• at 60 °C rated value	1 541 A
operating voltage	
rated value	200 480 V
at inside-delta circuit rated value	200 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at	-15 %
inside-delta circuit	
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
<ul> <li>at 230 V at 40 °C rated value</li> </ul>	315 kW
<ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul>	560 kW
<ul> <li>at 400 V at 40 °C rated value</li> </ul>	560 kW
at 400 V at inside-delta circuit at 40 °C rated value	1 000 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 %
minimum load [%]	10 %; Relative to set le
power loss [W] for rated value of the current at AC	
• at 40 °C after startup	330 W
• at 50 °C after startup	270 W
at 60 °C after startup	223 W
power loss [W] at AC at current limitation 350 %	
• at 40 °C during startup	18 502 W
• at 50 °C during startup	15 568 W
at 60 °C during startup	13 552 W
type of the motor protection	Electronic, tripping in the event of thermal overload of the motor
Control circuit/ Control	10
type of voltage of the control supply voltage	AC
control supply voltage at AC	440 0501/
• at 50 Hz	110 250 V
• at 60 Hz	110 250 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %

relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
control supply voltage frequency	50 60 Hz
relative negative tolerance of the control supply voltage frequency	-10 %
relative positive tolerance of the control supply voltage frequency	10 %
control supply current in standby mode rated value	100 mA
holding current in bypass operation rated value	210 mA
locked-rotor current at close of bypass contact maximum	1 A
inrush current peak at application of control supply voltage maximum	44 A
duration of inrush current peak at application of control supply voltage	1.7 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	4
parameterizable	4
number of inputs for thermistor connection	1; Type A PTC or Klixon / Thermoclick
• number of digital outputs	4
<ul> <li>number of digital outputs parameterizable</li> </ul>	3
<ul> <li>number of digital outputs not parameterizable</li> </ul>	1
digital output version	3 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	1
switching capacity current of the relay outputs	
<ul> <li>at AC-15 at 250 V rated value</li> </ul>	3 A
at DC-13 at 24 V rated value	1 A
Installation/ mounting/ dimensions	
mounting position	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
fastening method	screw fixing
height	764 mm
width	478 mm
depth	241 mm
required spacing with side-by-side mounting	40
• forwards	10 mm
• backwards	0 mm
• upwards	100 mm
<ul><li>downwards</li><li>at the side</li></ul>	75 mm 5 mm
weight without packaging	61 kg
Connections/ Terminals	V1.119
type of electrical connection	
for main current circuit	busbar connection
• for control circuit	screw-type terminals
width of connection bar maximum	55 mm
wire length for thermistor connection	
• with conductor cross-section = 0.5 mm² maximum	50 m
• with conductor cross-section = 1.5 mm² maximum	150 m
• with conductor cross-section = 2.5 mm² maximum	250 m
type of connectable conductor cross-sections	
for DIN cable lug for main contacts stranded	2x (50 240 mm²)
for DIN cable lug for main contacts finely stranded	2x (70 240 mm²)
type of connectable conductor cross-sections	
for control circuit solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)

<ul> <li>for control circuit finely stranded with core end</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
processing	4 (00 40) 0 (00 44)
at AWG cables for control circuit solid	1x (20 12), 2x (20 14)
wire length	
<ul> <li>between soft starter and motor maximum</li> </ul>	800 m
at the digital inputs at DC maximum	1 000 m
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	20 35 N·m
for auxiliary and control contacts with screw-type terminals	0.8 1.2 N·m
tightening torque [lbf·in]	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	177 310 lbf·in
<ul> <li>for auxiliary and control contacts with screw-type terminals</li> </ul>	7 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or
- aa3 obo.a	above
<ul> <li>during storage and transport</li> </ul>	-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
PROFINET standard     PROFINET high-feature	Yes
EtherNet/IP	Yes
Modbus RTU	Yes
Modbus RTO     Modbus TCP	Yes
PROFIBUS	Yes
	165
UL/CSA ratings	
manufacturer's article number	
of the fuse	
<ul> <li>— usable for Standard Faults up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 3000 A; Iq = 85 kA
<ul> <li>usable for High Faults up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 3000 A; Iq = 100 kA
<ul> <li>usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 3000 A; Iq = 85 kA
<ul> <li>usable for High Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 3000 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
<ul> <li>at 200/208 V at 50 °C rated value</li> </ul>	350 hp
<ul> <li>at 220/230 V at 50 °C rated value</li> </ul>	400 hp
<ul> <li>at 460/480 V at 50 °C rated value</li> </ul>	850 hp
<ul> <li>at 200/208 V at inside-delta circuit at 50 °C rated value</li> </ul>	600 hp
<ul> <li>at 220/230 V at inside-delta circuit at 50 °C rated value</li> </ul>	700 hp
• at 460/480 V at inside-delta circuit at 50 °C rated value	1 500 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
electromagnetic compatibility	
cicon omagnetic compatibility	acc. to IEC 60947-4-2
ATEX	acc. to IEC 60947-4-2

certificate of suitability	
• ATEX	Yes
• IECEx	Yes
<ul> <li>according to ATEX directive 2014/34/EU</li> </ul>	BVS 18 ATEX F 003 X
type of protection according to ATEX directive 2014/34/EU	II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], I (M2) [Ex db Mb]
hardware fault tolerance acc. to IEC 61508 relating to ATEX	0
PFDavg with low demand rate acc. to IEC 61508 relating to ATEX	0.008
PFHD with high demand rate acc. to EN 62061 relating to ATEX	0.0000005 1/h
Safety Integrity Level (SIL) acc. to IEC 61508 relating to ATEX	SIL1
T1 value for proof test interval or service life acc. to IEC 61508 relating to ATEX	3 y

Certificates/ approvals

**General Product Approval** 

EMC

For use in hazardous locations













For use in hazardous locations Declaration of Conformity

**Test Certificates** 

Marine / Shipping

other





Type Test Certificates/Test Report





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=3RW5556-6HA14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5556-6HA14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5556-6HA14

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5556-6HA14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

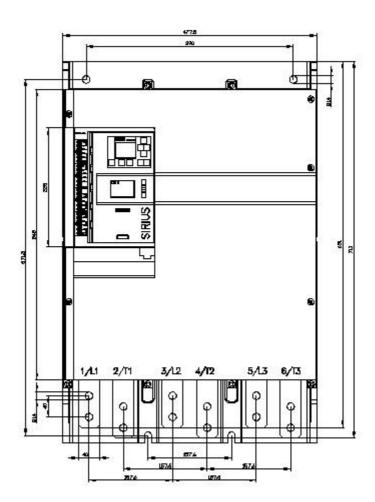
https://support.industry.siemens.com/cs/ww/en/ps/3RW5556-6HA14/char

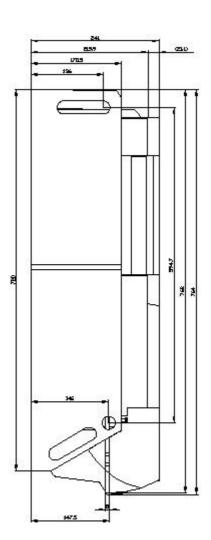
Characteristic: Installation altitude

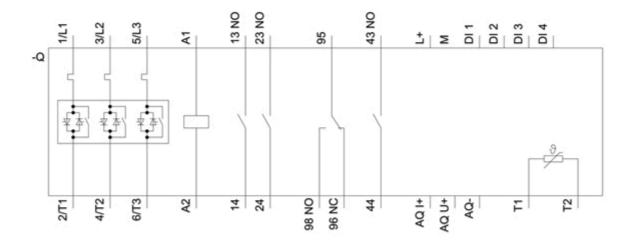
 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RW5556-6HA14\&objecttype=14\&gridview=view1}$ 

Simulation Tool for Soft Starters (STS)

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







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