SIEMENS

Data sheet 3RW5524-3HF14



SIRIUS soft starter 200-480 V 47 A, 110-250 V AC, spring-type terminals Fail-safe

Figure similar

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

- of high feature HMI module usable
- of communication module PROFINET standard usable
- of communication module PROFINET high-feature 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
- \bullet of back-up R fuse link for semiconductor protection usable up to 690 V
- of the redundant contactor for applications > SIL 1 according to EN 62061
- of the redundant contactor for applications > SIL 1 at inside-delta circuit according to EN 62061
- of the redundant contactor for applications > SIL 1 according to EN ISO 13849-1

 of the redundant contactor for applications > SIL 1
- of the redundant contactor for applications > SIL 1 at inside-delta circuit according to EN ISO 13849-1

SIRIUS

Hybrid switching devices Failsafe soft starters

3RW55

3RW5980-0HF00

3RW5980-0CS00

3RW5950-0CH00

3RW5980-0CP00

3RW5980-0CT00

3RW5980-0CR00

3RW5980-0CE00

3RV2032-4JA10; Type of coordination 1, Iq = 65 kA, CLASS 10

3RV2032-4JA10; Type of coordination 1, Iq = 10 kA, CLASS 10

3RV2032-4RA10; Type of coordination 1, Iq = 65 kA, CLASS 10

3RV2032-4RA10; Type of coordination 1, Iq = 10 kA, CLASS 10

3NA3824-6; Type of coordination 1, Iq = 65 kA

3NA3824-6; Type of coordination 1, Iq = 65 kA

3NE1021-2; Type of coordination 2, Iq = 65 kA

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

3RT2038

3RT2038

3RT2046

3RT2046

General technical data

starting voltage [%] stopping voltage [%] start-up ramp time of soft starter ramp-down time of soft starter start torque [%] stopping torque [%] torque limitation [%] 20 ... 100 %

50 %; non-adjustable

0 ... 360 s

0 ... 360 s

10 ... 100 %

10 ... 100 % 20 ... 200 %

2/13/2023

current limiting value [%] adjustable 125 ... 800 % 40 ... 100 % breakaway voltage [%] adjustable breakaway time adjustable 0 ... 2 s number of parameter sets 3 accuracy class according to IEC 61557-12 5 % certificate of suitability CE marking Yes Yes UL approval CSA approval Yes product component • HMI-High Feature Yes • is supported HMI-High Feature Yes product feature integrated bypass contact system Yes number of controlled phases trip class CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2 current unbalance limiting value [%] 10 ... 60 % ground-fault monitoring limiting value [%] 10 ... 95 % buffering time in the event of power failure 100 ms • for main current circuit • for control circuit 100 ms idle time adjustable 0 ... 255 s insulation voltage rated value 480 V degree of pollution 3, acc. to IEC 60947-4-2 6 k\/ impulse voltage rated value blocking voltage of the thyristor maximum 1 400 V 1.15 service factor surge voltage resistance rated value 6 kV maximum permissible voltage for safe isolation • between main and auxiliary circuit 480 V; does not apply for thermistor connection 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 recovery time after overload trip adjustable 60 ... 1 800 s utilization category according to IEC 60947-4-2 AC 53a reference code according to IEC 81346-2 11/22/2019 Substance Prohibitance (Date) product function • ramp-up (soft starting) Yes • ramp-down (soft stop) Yes Yes • breakaway pulse • adjustable current limitation Yes • creep speed in both directions of rotation Yes • pump ramp down Yes DC braking Yes Yes motor heating Yes • slave pointer function Yes trace function • intrinsic device protection Yes Yes; Full motor protection (thermistor motor protection and electronic motor overload protection motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta • evaluation of thermistor motor protection Yes; Type A PTC or Klixon / Thermoclick • inside-delta circuit Yes auto-RESET Yes manual RESET Yes remote reset Yes communication function Yes • operating measured value display Yes Yes event list error logbook Yes • via software parameterizable Yes • via software configurable Yes No screw terminal spring-loaded terminal Yes: in connection with the PROFINET Standard and PROFINET High-PROFlenergy

	Feature communication modules
firmware update	Yes
removable terminal for control circuit	Yes
voltage ramp	Yes
torque control	Yes
combined braking	Yes
analog output	Yes; 4 20 mA (default) / 0 10 V
programmable control inputs/outputs	Yes
condition monitoring	Yes
automatic parameterisation	Yes
application wizards	Yes
alternative run-down	Yes
 emergency operation mode 	Yes
 reversing operation 	Yes
 soft starting at heavy starting conditions 	Yes
Power Electronics	
operational current	
 at 40 °C rated value 	47 A
 at 40 °C rated value minimum 	10 A
 at 50 °C rated value 	41.6 A
 at 60 °C rated value 	36.2 A
operational current at inside-delta circuit	
 at 40 °C rated value 	81.4 A
 at 50 °C rated value 	72 A
 at 60 °C rated value 	62.7 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 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	11 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	22 kW
• at 400 V at 40 °C rated value	22 kW
at 400 V at inside-delta circuit at 40 °C rated value	45 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 minimum load [%]	10 %
• •	10 %; Relative to set le
power loss [W] for rated value of the current at AC • at 40 °C after startup	14 W
• at 50 °C after startup	12 W
• at 60 °C after startup	11 W
power loss [W] at AC at current limitation 350 %	
• at 40 °C during startup	588 W
at 50 °C during startup	504 W
at 60 °C during startup	420 W
type of the motor protection	Electronic, tripping in the event of thermal overload of the motor
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz	110 250 V
• at 60 Hz	110 250 V
relative negative tolerance of the control supply	-15 %
voltage at AC at 50 Hz	
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	10 %
voltage at AC at 60 Hz	10 /0
control supply voltage frequency	50 60 Hz
relative negative tolerance of the control supply	-10 %
voltage frequency	40.07
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	180 mA
inrush current by closing the bypass contacts	0.8 A
maximum	40 A
inrush current peak at application of control supply voltage maximum	43 A
duration of inrush current peak at application of control	1.6 ms
supply voltage	
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
with fail-safe	1
parameterizable	4
number of digital outputs	3
Number of digital outputs with fail-safe	1
 number of digital outputs parameterizable 	2
 number of digital outputs not parameterizable 	1
digital output version	2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1
number of analog outputs	changeover contact (CO) 1
switching capacity current of the relay outputs	ı
at AC-15 at 250 V rated value	3 A
at DC-13 at 24 V rated value	1 A
Response times	
OFF-delay time with safety-related request when switched off via control inputs maximum	100 ms
Installation/ mounting/ dimensions	
mounting position	
	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
fastening method	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing
fastening method height	,
-	screw fixing
height width depth	screw fixing 306 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm
height width depth required spacing with side-by-side mounting • forwards	screw fixing 306 mm 185 mm 203 mm
height width depth required spacing with side-by-side mounting • forwards • backwards	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm
height width depth required spacing with side-by-side mounting • forwards • backwards	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m 150 m
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m 150 m 250 m
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m 150 m
height width depth required spacing with side-by-side mounting	screw fixing 306 mm 185 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 5.5 kg box terminal spring-loaded terminals 25 mm 50 m 150 m 250 m

** all AVIC cables for main contacts for box terminal using the back clamping point sold ** at AVIC cables for main contacts for box terminal using both clamping points silved ** at AVIC cables for main contacts for box terminal using both clamping points silved ** for main contacts for box terminal using both clamping points stranded ** for main contacts for box terminal using both clamping points stranded ** for main contacts for box terminal using both clamping points stranded ** for main contacts for box terminal using both clamping points stranded ** for main contacts for box terminal using both clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for main contacts for box terminal using the back clamping point stranded ** for control circuit sold ** for auxiliary and control circuit sold ** for auxiliary and control contacts with screw-type terminals ** for auxiliary and control contacts with screw-type terminals ** for auxiliary and control contacts with screw-type terminals ** for auxiliary and control contacts with screw-type terminals ** for auxiliary and control contacts with screw-type terminals ** during storage and transport ** during storage according to IEC 60721 ** during storage according to IEC 60721 **	clamping point stranded	
using the front clamping point I or main contacts for box terminal using the back clamping point solid I or main contacts for box terminal using both or main contacts for box terminal using both or main contacts for box terminal using both clamping points fixely stranded with core end processing I or main contacts for box terminal using both clamping points fixely stranded with core end processing I or main contacts for box terminal using both clamping points stranded I or main contacts for box terminal using the back clamping point fixely stranded with core end processing I or main contacts for box terminal using the back clamping point fixely stranded with core end processing I or control circuit solid I or control circuit solid I or control circuit fixely stranded with core end processing I or main contacts with screw-type terminals I or available or control circuit fixely stranded with core end processing I or main contacts with screw-type terminals I or available yand control contacts with screw-type terminals I or available yand control contacts with screw-type terminals I or available yand control contacts with screw-type terminals I or available yand control contacts with screw-type terminals I or available yand control contacts with screw-type terminals I or available or available yand control contacts with screw-type terminals I or available or	clamping point stranded	1× /10 2/0\
clamping point solid a st AWG cables for main contacts for box terminal using the back clamping point brown contacts for box terminal using both clamping points finely stranded with core end processing a more contacts for box terminal using both clamping points finely stranded with core end processing a for main contacts for box terminal using both clamping point finely stranded with core end processing of main contacts for box terminal using the back clamping point finely stranded with core end processing of or main contacts for box terminal using the back clamping point stranded strand for control circuit finely stranded with core end processing of or control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of an auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and control contacts with screw-type terminals of or auditary and contro		17 (10 210)
a d AWG cables for main contacts for box terminal using the back clamping point standed of the control for main contacts for box terminal using both clamping points firely stranded with core and processing or for main contacts for box terminal using both clamping points stranded of the control for main contacts for box terminal using both clamping points stranded of processing or for main contacts for box terminal using the back clamping point stranded of processing or for main contacts for box terminal using the back clamping point stranded of processing or for control circuit solid of control circuit solid of control circuit solid of control circuit solid of the control c	<u> </u>	1x (2.5 16 mm²)
of or main contacts for box terminal using both clamping points solid of or main contacts for box terminal using both clamping points finely stranded with core end processing of or main contacts for box terminal using both clamping points stranded of or main contacts for box terminal using the back clamping point stranded of or main contacts for box terminal using the back clamping point stranded of main contacts for box terminal using the back clamping point stranded of main contacts for box terminal using the back clamping point stranded of main contacts for box terminal using the back clamping point stranded of more control circuit solid of control circuit solid of control circuit solid of AWG cables for control circuit finely stranded with core end processing wire length observed in the strand of the strand of the strand or	 at AWG cables for main contacts for box terminal 	1x (10 2/0)
• for main contacts for box terminal using both clamping points finely stranded with core end processing of main contacts for box terminal using both clamping points first stranded of main contacts for box terminal using the back clamping point stranded of main contacts for box terminal using the back clamping point stranded with core end processing of main contacts for box terminal using the back clamping point stranded with core end processing of main contacts for box terminal using the back clamping point stranded with core of or control circuit sold of the processing of the pro	 for main contacts for box terminal using both 	2x (2.5 16 mm²)
### Commain contacts for box terminal using both clamping points stranded **For main contacts for box terminal using the back clamping point stranded **For main contacts for box terminal using the back clamping point stranded with core end processing **For main contacts for box terminal using the back clamping point stranded with core end processing **For main contacts for box terminal using the back clamping point stranded with core end processing **For control circuit sindle **For control circuit finely stranded with core end processing **A AWG cables for control circuit solid **A Expression of the starter and motor maximum **A In the digital inputs at D.C maximum **A In the digital inputs at D.C maximum **Sol maximum of the starter and motor maximum **A In the digital inputs at D.C maximum **Sol maximum of the starter and motor maximum **A In the digital inputs at D.C maximum **Sol maximum of the starter and motor maximum **A In the starter and motor contacts with screw-type terminals **A In the starter and motor maximum **A In the starter and motor contacts with screw-type terminals **A In the starter and motor maximum **A In the starter and motor contacts with screw-type terminals **A In the starter and motor maximum **A In the starter and	 for main contacts for box terminal using both 	2x (2.5 35 mm²)
clamping points stranded • for main contacts for box terminal using the back clamping point stranded with core end processing • for main contacts for box terminal using the back clamping point stranded with core end processing • for formic circuit solid • for control circuit finely stranded with core end processing • at AWG cables for control circuit solid • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • wire length • between soft starter and motor maximum • at the digital inputs at DC maximum • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • for main contacts with screw-type terminals • for maximizery and control contacts with screw-type • during sport according to IEC 60721 • during sporage according to I	processing	
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clamping point stranded type of connectable conductor cross-sections (of crontrol circuit solid for control circuit solid for control circuit solid for control circuit solid at AWG cables for control circuit finely stranded with core end processing at AWG cables for control circuit finely stranded with core end processing wire length between soft starter and motor maximum at the digital inputs at DC maximum at the digital inputs at DC maximum tightening torque for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals for availlary and control contacts with screw-type terminals tightening torque (ibf-in) for main contacts with screw-type terminals 40 53 lbf-in 7 10.3 lbf-in terminals 40 53 lbf-in 7 10.3 lbf-in terminals 40 55 lbf-in 7 10.3 lbf-in terminals 40 55 lbf-in 7 10.3 lbf-in terminals 40 50 lbr-in 40 45 lbr-in 40 50 lbr-in 50 lbr-in 40 50 lbr-in 50 lbr-i	clamping point finely stranded with core end	1x (2.5 50 mm²)
• for control circuit solid • for control circuit solid • for control circuit solid • for control circuit finely stranded with core end processing • at AWC cables for control circuit solid • at AWC cables for control circuit solid • at AWC cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • at more control contacts with screw-type terminals • for maxiliary and control contacts with screw-type terminals • for maxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for maxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for		1x (10 70 mm²)
• for control circuit finely stranded with core end processing • at AWG cables for control circuit solid • between soft starter and motor maximum • at the digital inputs at DC maximum itightening torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type	type of connectable conductor cross-sections	
e at AWG cables for control circuit solid e at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum at the digital inputs at DC maximum 1 000 m tightening torque • for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for an usuliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • during operation • during operation • during operation • during operation • during storage according to IEC 60721 • PROFINET standard • PROFINET standard • PROFINET standard • PROFINET standard • P		
at AWG cables for control circuit finely stranded with core end processing wire length between soft starter and motor maximum at the digital inputs at DC maximum for main contacts with screw-type terminals for maildiary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals Ambient conditions Installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during storage and transport during storage according to IEC 60721 during storage according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 EMC emitted interforence communication Frotocol communication module is supported PROFINET standard PROFINED		2x (0.25 1.5 mm²)
core end processing wire length • between soft starter and motor maximum • at the digital inputs at DC maximum itightening torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • during storage according to level maximum antition of a for auxiliary and control of a for auxiliary and a for auxilia	 at AWG cables for control circuit solid 	2x (24 16)
between soft starter and motor maximum at the digital inputs at DC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals ambient temperature during operation during operation during storage and transport environmental category during storage and transport during storage according to IEC 60721 eduring transport according to IEC 60721 EMC emitted interference communication module is supported PROFINET standard PROF		2x (24 16)
between soft starter and motor maximum at the digital inputs at DC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals tightening torque [lipf-in] for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals		
at the digital inputs at DC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals tightening torque [lbf·in] for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals 40 53 lbf-in 7 10.3 lbf-in 2 000 m; Deratting as of 1000 m, see catalog and the perature of 40 °C or above 40 +80 °C Flease observe derating at temperatures of 40 °C or above 40 +80 °C Stending operation according to IEC 60721 Along operation according to IEC 60721 Steff (no lee formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no lee formation, only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 3M6 1K6 (no lee formation, only occasional condensation), 1C2 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no lee formation, only occasional condensation), 1C2 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no lee formation, only occasional condensation), 1C2 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no lee formation, only occasional condensation), 1C2 (no salt mist), 2S2 (sand must not get into the devices), 3M6 1K6 (no lee formation, only occasional conden	•	000
• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • present transport according to IEC 60721 •		
• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals tightening torque [Ibf-In] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport environmental category • during storage according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • Modius Terperotectore Communication Protocol communication module is supported • PROFINET standard • PROFINET high-feature • Of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V at Siemens type: 3RV2742, max. 70 A or 3VA51, max. 90 A; Iq = 5 kA Siemens type: 3VA51, max. 90 A; Iq = 5 kA		1 000 m
• for auxiliary and control contacts with screw-type terminals tightening torque [libf·in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation according to IEC 60721 • during operation according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • EMC emitted interference communication Protocol communication Protocol communication module is supported • PROFINET standard • PROFINET standard • PROFINET high-feature • Hodobus RTU • Modbus RTU • Modbus TCP • PROFIBUS publication according to IEC 60740 Ves • PROFIBUS manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at Siemens type: 3RV2742, max. 70 A or 3VA51, max. 90 A; Iq = 5 kA Siemens type: 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3VA51, max. 90 A; Iq = 5 kA		4.5 6.N.m
terminals tightening torque [lbf·in]		
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to UL — usable for Standard Faults at 460/480 V at Siemens type: 3VA51, max. 90 A; Iq = 5 kA	according to UL	
	to UL	
		Siemens type: 3VA51, max. 90 A; Iq = 5 kA

- usable for High Faults at 460/480 V at inside-Siemens type: 3VA51, max. 60 A; Iq max = 65 kA delta circuit according to UL - usable for Standard Faults at 575/600 V Siemens type: 3RV2742, max. 70 A or 3VA51, max. 90 A; Iq = 5 kA according to UL - usable for High Faults at 575/600 V at inside-Siemens type: 3VA51, max. 60 A; Iq max = 65 kA delta circuit according to UL - usable for Standard Faults at 575/600 V at Siemens type: 3VA51, max. 90 A; Iq = 5 kA inside-delta circuit according to UL • of the fuse usable for Standard Faults up to 575/600 V Type: Class RK5 / K5, max. 175 A; Iq = 5 kA according to UL – usable for High Faults up to 575/600 V Type: Class J / L, max. 175 A; Iq = 100 kA according to UL - usable for Standard Faults at inside-delta Type: Class RK5 / K5, max. 175 A; Iq = 5 kA circuit up to 575/600 V according to UL - usable for High Faults at inside-delta circuit up Type: Class J / L, max. 175 A; Iq = 100 kA to 575/600 V according to UL operating power [hp] for 3-phase motors • at 200/208 V at 50 °C rated value 10 hp at 220/230 V at 50 °C rated value 10 hp at 460/480 V at 50 °C rated value 30 hp • at 200/208 V at inside-delta circuit at 50 °C rated 20 hp value • at 220/230 V at inside-delta circuit at 50 °C rated 25 hp • at 460/480 V at inside-delta circuit at 50 °C rated 50 hp value contact rating of auxiliary contacts according to UL R300-B300 Safety related data safety device type according to IEC 61508-2 Type B

B10d value	1 000 000
Safety Integrity Level (SIL)	
 according to IEC 61508 	SIL1
SIL Claim Limit (subsystem) according to EN 62061	SIL 1
performance level (PL) according to EN ISO 13849-1	С
category according to EN ISO 13849-1	2
stop category according to EN 60204-1	0
Safe failure fraction (SFF)	60 %
average diagnostic coverage level (DCavg)	90 %
diagnostics test interval by internal test function	1 000 s
maximum	
PFHD with high demand rate according to EN 62061	1E-6 1/h
PFDavg with low demand rate according to IEC 61508	0.09
hardware fault tolerance according to IEC 61508	0
T1 value for proof test interval or service life according to IEC 61508	20 a
safe state	Open load circuit
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

certificate of suitability ATEX Yes IECEx Yes according to ATEX directive 2014/34/EU BVS 18 ATEX F 003 X type of protection according to ATEX directive II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], 2014/34/EU I (M2) [Ex db Mb] hardware fault tolerance according to IEC 61508 relating to ATEX PFDavg with low demand rate according to IEC 61508 0.008 relating to ATEX PFHD with high demand rate according to EN 62061 5E-7 1/h relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 SIL1 relating to ATEX T1 value for proof test interval or service life 3 a

acc. to IEC 60947-4-2

Certificates/ approvals

General Product Approval



Confirmation









EMC

For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping









Type Test Certificates/Test Report



Marine / Shipping

other







Confirmation

Further information

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=3RW5524-3HF14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5524-3HF14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5524-3HF14

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5524-3HF14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

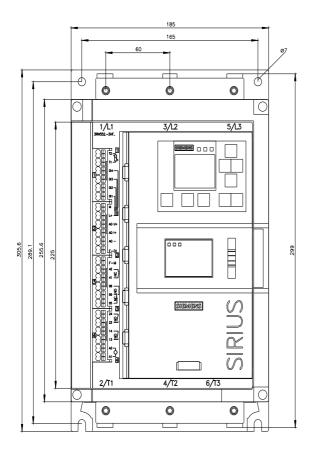
https://support.industry.siemens.com/cs/ww/en/ps/3RW5524-3HF14/char

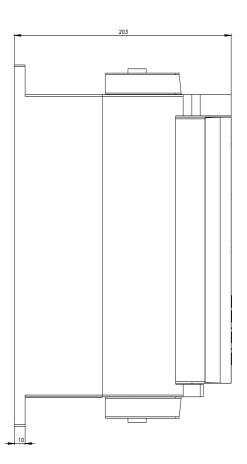
Characteristic: Installation altitude

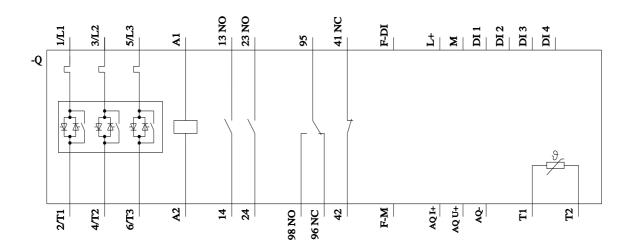
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5524-3HF14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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