



SIRIUS soft starter 200-480 V 32 A, 24 V AC/DC spring-type terminals

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
- 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
 3RW55

- [3RW5980-0HF00](#)
- [3RW5980-0CS00](#)
- [3RW5950-0CH00](#)
- [3RW5980-0CP00](#)
- [3RW5980-0CT00](#)
- [3RW5980-0CR00](#)
- [3RW5980-0CE00](#)
- [3RV2032-4VA10](#); Type of coordination 1, Iq = 65 kA, CLASS 10
- [3RV2032-4VA10](#); Type of coordination 1, Iq = 10 kA, CLASS 10
- [3RV2032-4JA10](#); Type of coordination 1, Iq = 65 kA, CLASS 10
- [3RV2032-4JA10](#); 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
- [3NE1818-0](#); Type of coordination 2, Iq = 65 kA
- [3NE8022-1](#); Type of coordination 2, Iq = 65 kA

General technical data

starting voltage [%]	20 ... 100 %
stopping voltage [%]	50 %; non-adjustable
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
certificate of suitability	
• CE marking	Yes
• UL approval	Yes
• CSA approval	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	32 A
• at 40 °C rated value minimum	6.5 A
• at 50 °C rated value	28.4 A
• at 60 °C rated value	26 A
operational current at inside-delta circuit	
• at 40 °C rated value	55.4 A
• at 50 °C rated value	49 A
• at 60 °C rated value	45 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	7.5 kW
• at 230 V at inside-delta circuit at 40 °C rated value	15 kW
• at 400 V at 40 °C rated value	15 kW
• at 400 V at inside-delta circuit at 40 °C rated value	22 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	10 W
• at 50 °C after startup	9 W
• at 60 °C after startup	8 W
power loss [W] at AC at current limitation 350 %	
• at 40 °C during startup	519 W
• at 50 °C during startup	437 W
• at 60 °C during startup	386 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/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	-20 %

voltage at DC	
relative positive tolerance of the control supply voltage at DC	20 %
control supply current in standby mode rated value	420 mA
holding current in bypass operation rated value	820 mA
inrush current by closing the bypass contacts maximum	0.91 A
inrush current peak at application of control supply voltage maximum	7.5 A
duration of inrush current peak at application of control supply voltage	20 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gG fuse (I _{cu} =1 kA), 6 A quick-acting fuse (I _{cu} =1 kA), C1 miniature circuit breaker (I _{cu} = 600 A), C6 miniature circuit breaker (I _{cu} = 300 A); Is not part of scope of supply

Inputs/ Outputs

number of digital inputs	4
<ul style="list-style-type: none"> parameterizable 	4
<ul style="list-style-type: none"> number of digital outputs 	4
<ul style="list-style-type: none"> number of digital outputs parameterizable 	3
<ul style="list-style-type: none"> number of digital outputs not parameterizable 	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 style="list-style-type: none"> at AC-15 at 250 V rated value 	3 A
<ul style="list-style-type: none"> 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	275 mm
width	170 mm
depth	152 mm
required spacing with side-by-side mounting	
<ul style="list-style-type: none"> forwards 	10 mm
<ul style="list-style-type: none"> backwards 	0 mm
<ul style="list-style-type: none"> upwards 	100 mm
<ul style="list-style-type: none"> downwards 	75 mm
<ul style="list-style-type: none"> at the side 	5 mm
weight without packaging	2.6 kg

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> for main current circuit 	screw-type terminals
<ul style="list-style-type: none"> for control circuit 	spring-loaded terminals
wire length for thermistor connection	
<ul style="list-style-type: none"> with conductor cross-section = 0.5 mm² maximum 	50 m
<ul style="list-style-type: none"> with conductor cross-section = 1.5 mm² maximum 	150 m
<ul style="list-style-type: none"> with conductor cross-section = 2.5 mm² maximum 	250 m
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> for main contacts 	
<ul style="list-style-type: none"> — solid 	2x (1.0 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
<ul style="list-style-type: none"> — finely stranded with core end processing 	2x (1.0 ... 2.5 mm ²), 2x (2.5 ... 6.0 mm ²)
<ul style="list-style-type: none"> at AWG cables for main current circuit solid 	2x (16 ... 12), 2x (14 ... 8)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> for control circuit solid 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> for control circuit finely stranded with core end processing 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> at AWG cables for control circuit solid 	2x (24 ... 16)
<ul style="list-style-type: none"> at AWG cables for control circuit finely stranded with core end processing 	2x (24 ... 16)
wire length	
<ul style="list-style-type: none"> between soft starter and motor maximum 	800 m
<ul style="list-style-type: none"> at the digital inputs at DC maximum 	1 000 m
tightening torque	
<ul style="list-style-type: none"> for main contacts with screw-type terminals 	2 ... 2.5 N·m

<ul style="list-style-type: none"> for auxiliary and control contacts with screw-type terminals 	0.8 ... 1.2 N·m
tightening torque [lbf·in] <ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals 	18 ... 22 lbf·in 7 ... 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level maximum ambient temperature <ul style="list-style-type: none"> during operation during storage and transport environmental category <ul style="list-style-type: none"> during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 EMC emitted interference	5 000 m; Derating as of 1000 m, see catalog -25 ... +60 °C; Please observe derating at temperatures of 40 °C or above -40 ... +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
Communication/ Protocol	
communication module is supported <ul style="list-style-type: none"> PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS 	Yes Yes Yes Yes Yes Yes
UL/CSA ratings	
manufacturer's article number <ul style="list-style-type: none"> of circuit breaker <ul style="list-style-type: none"> — 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 inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL of the fuse <ul style="list-style-type: none"> — 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 <ul style="list-style-type: none"> 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 at 220/230 V at inside-delta circuit at 50 °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. 100 A; Iq = 5 kA Siemens type: 3RV2742, max.40 A or 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; Iq = 5 kA Siemens type: 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; Iq = 5 kA Siemens type: 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; Iq = 5 kA Type: Class RK5 / K5, max. 125 A; Iq = 5 kA Type: Class J / L, max. 125 A; Iq = 100 kA Type: Class RK5 / K5, max. 125 A; Iq = 5 kA Type: Class J / L, max. 125 A; Iq = 100 kA 7.5 hp 10 hp 20 hp 15 hp 15 hp 30 hp R300-B300
Safety related data	
protection class IP on the front according to IEC 60529	IP20

touch protection on the front according to IEC 60529
electromagnetic compatibility

finger-safe, for vertical contact from the front
acc. to IEC 60947-4-2

ATEX

certificate of suitability

- ATEX
- IECEx
- according to ATEX directive 2014/34/EU

Yes
Yes
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 according to IEC 61508 relating to ATEX

0

PFDAvg with low demand rate according to IEC 61508 relating to ATEX

0.008

PFHD with high demand rate according to EN 62061 relating to ATEX

5E-7 1/h

Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX

SIL1

T1 value for proof test interval or service life according to IEC 61508 relating to ATEX

3 a

Certificates/ approvals

General Product Approval

EMC



[Confirmation](#)



For use in hazardous locations

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=3RW5516-3HA04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5516-3HA04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5516-3HA04>

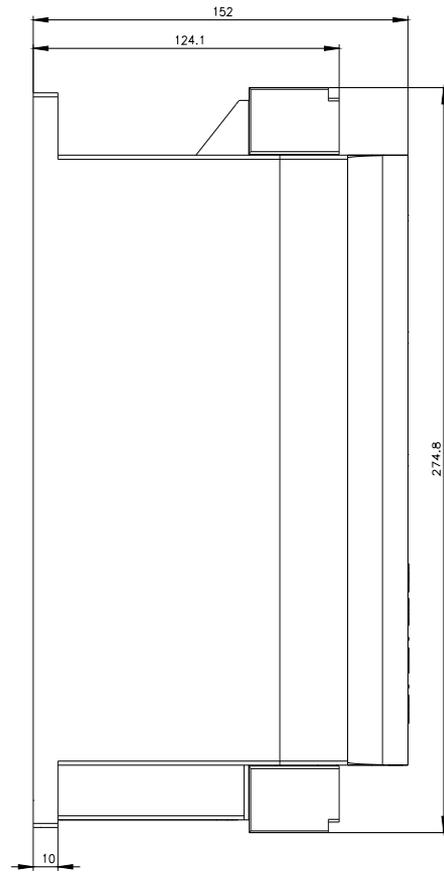
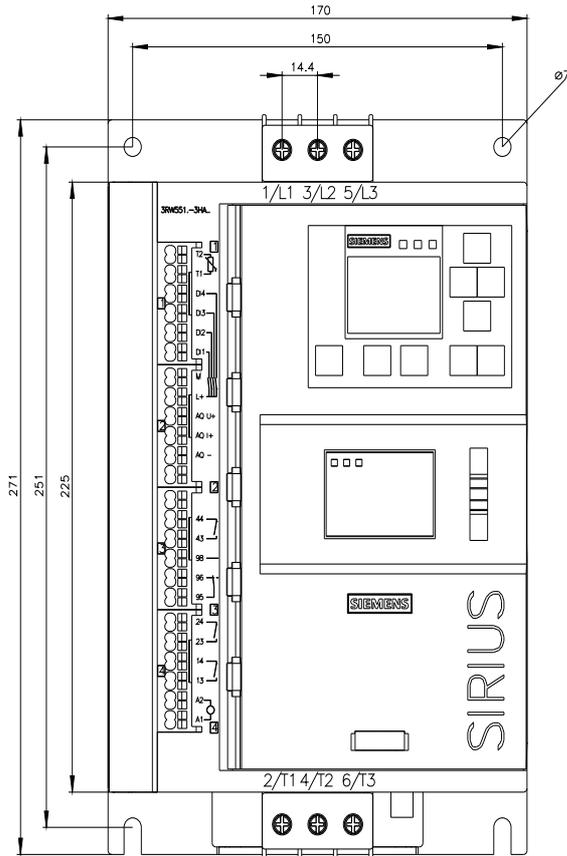
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

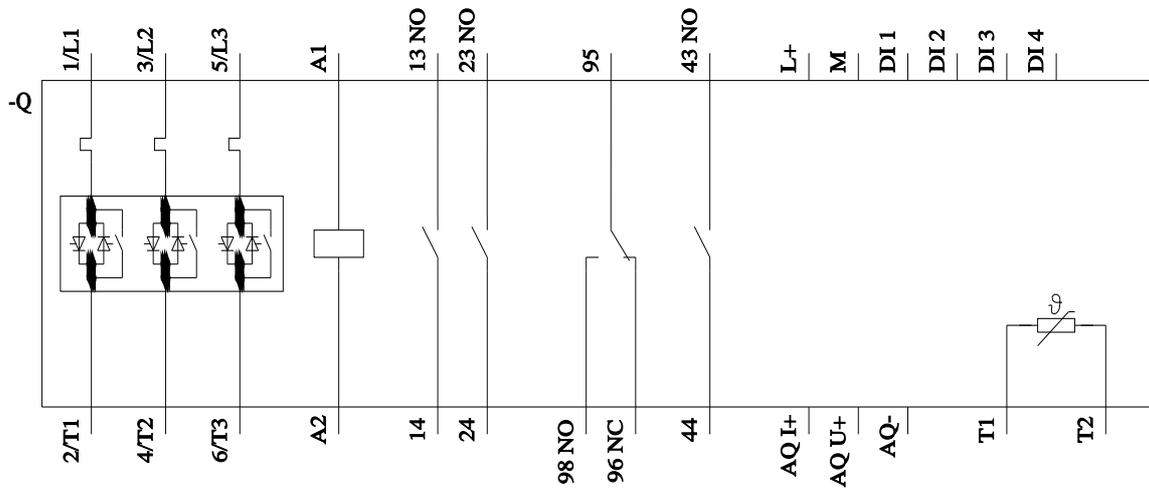
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5516-3HA04&lang=en

Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5516-3HA04/char>

Characteristic: Installation altitude





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