# **SIEMENS**

Data sheet 3RW5227-3AC04



SIRIUS soft starter 200-480 V 93 A, 24 V AC/DC spring-type terminals Analog output

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

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

SIRIUS

Hybrid switching devices

Soft starter

3RW52

3RW5980-0HS00

3RW5980-0HF00

3RW5980-0CS00

3RW5980-0CP00

3RW5980-0CT00

3RW5980-0CR00

3RW5980-0CE00

3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 15 kA, CLASS 10

3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10

3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 15 kA, CLASS 10

3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10

3NA3136-6; Type of coordination 1, Iq = 65 kA

3NA3136-6; Type of coordination 1, Iq = 65 kA

3NE1224-0; Type of coordination 2, Iq = 65 kA

3NE4124; Type of coordination 2, Iq = 65 kA

## General technical data

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

- CE marking
- UL approval
- CSA approval

### product component

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

product feature integrated bypass contact system number of controlled phases

trip class

buffering time in the event of power failure

30 ... 100 %

50 %; non-adjustable

0 ... 20 s

130 ... 700 %

Yes

Yes

Yes

No

Yes

Yes

Yes

3

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

for main current circuit	100 ms
for control circuit	100 ms
insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 400 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between main and auxiliary circuit</li> </ul>	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	
<ul><li>ramp-up (soft starting)</li></ul>	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 V
• inside-delta circuit	Yes
• auto-RESET	Yes
• manual RESET	Yes
• remote reset	Yes; By turning off the control supply voltage Yes
communication function     congrating management value display.	
<ul><li>operating measured value display</li><li>error logbook</li></ul>	Yes; Only in conjunction with special accessories Yes; Only in conjunction with special accessories
via software parameterizable	No
via software parameterizable     via software configurable	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication
• FIXOI IEIIEI UV	res, in connection with the rivor included communication
	module
	module Yes
firmware update     removable terminal for control circuit	
• firmware update	Yes
firmware update     removable terminal for control circuit	Yes Yes
<ul> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>torque control</li> </ul>	Yes Yes No
<ul> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>torque control</li> </ul>	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature
<ul> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>torque control</li> <li>analog output</li> </ul>	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics operational current	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)
• firmware update     • removable terminal for control circuit     • torque control     • analog output  Power Electronics  operational current     • at 40 °C rated value     • at 50 °C rated value     • at 60 °C rated value operational current at inside-delta circuit	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A
• firmware update     • removable terminal for control circuit     • torque control     • analog output  Power Electronics  operational current     • at 40 °C rated value     • at 50 °C rated value     • at 60 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A
• firmware update     • removable terminal for control circuit     • torque control     • analog output  Power Electronics  operational current     • at 40 °C rated value     • at 50 °C rated value     • at 60 °C rated value operational current at inside-delta circuit	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A
• firmware update     • removable terminal for control circuit     • torque control     • analog output  Power Electronics  operational current     • at 40 °C rated value     • at 50 °C rated value     • at 60 °C rated value     operational current at inside-delta circuit     • at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value  operational current at inside-delta circuit     at 40 °C rated value     at 50 °C rated value  operational current at inside-delta circuit     at 40 °C rated value     at 50 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value  operational current at inside-delta circuit     at 40 °C rated value     at 50 °C rated value     at 50 °C rated value     at 60 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value  operational current at inside-delta circuit     at 40 °C rated value     or at 60 °C rated value     at 50 °C rated value     at 50 °C rated value     at 60 °C rated value     at inside-delta circuit rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at 60 °C rated value     operational current at inside-delta circuit     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     operating voltage     rated value     rated value     rated value     rated value     at inside-delta circuit rated value relative negative tolerance of the operating voltage	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 %
firmware update     removable terminal for control circuit     torque control     analog output  Power Electronics  operational current     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at 60 °C rated value  operational current at inside-delta circuit     at 40 °C rated value     at 50 °C rated value     at 60 °C rated value     at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 %
firmware update         removable terminal for control circuit         torque control         analog output  Power Electronics  operational current	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 %
firmware update         removable terminal for control circuit         torque control         analog output  Power Electronics  operational current	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 %
firmware update         removable terminal for control circuit         torque control         analog output  Power Electronics  operational current	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 %
firmware update         removable terminal for control circuit         torque control         analog output  Power Electronics  operational current	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 %
• firmware update     • removable terminal for control circuit     • torque control     • analog output  Power Electronics  operational current     • at 40 °C rated value     • at 50 °C rated value     • at 60 °C rated value     • at 60 °C rated value     • at 40 °C rated value     • at 40 °C rated value     • at 50 °C rated value     • at 50 °C rated value     • at 50 °C rated value     • at 60 °C rated value     • at 60 °C rated value     • at inside-delta circuit rated value     relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors     • at 230 V at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 % 10 %
• firmware update • removable terminal for control circuit • torque control • analog output  Power Electronics  operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 % 10 %  22 kW 45 kW
• firmware update • removable terminal for control circuit • torque control • analog output  Power Electronics  operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 % 10 %  22 kW 45 kW 45 kW
• firmware update • removable terminal for control circuit • torque control • analog output  Power Electronics  operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value operational current at inside-delta circuit • at 40 °C rated value • at 50 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value	Yes Yes No Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI)  93 A 82.5 A 75.5 A  161 A 143 A 131 A  200 480 V 200 480 V -15 % 10 % -15 % 10 %  22 kW 45 kW

Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
adjustable motor current	
<ul> <li>at rotary coding switch on switch position 1</li> </ul>	40.5 A
<ul> <li>at rotary coding switch on switch position 2</li> </ul>	44 A
<ul> <li>at rotary coding switch on switch position 3</li> </ul>	47.5 A
<ul> <li>at rotary coding switch on switch position 4</li> </ul>	51 A
at rotary coding switch on switch position 5	54.5 A
<ul> <li>at rotary coding switch on switch position 6</li> </ul>	58 A
at rotary coding switch on switch position 7	61.5 A
at rotary coding switch on switch position 8     at rotary coding switch on switch position 0.	65 A 68.5 A
<ul> <li>at rotary coding switch on switch position 9</li> <li>at rotary coding switch on switch position 10</li> </ul>	72 A
at rotary coding switch on switch position 11     at rotary coding switch on switch position 11	75.5 A
at rotary coding switch on switch position 12	79 A
at rotary coding switch on switch position 13	82.5 A
at rotary coding switch on switch position 14	86 A
at rotary coding switch on switch position 15	89.5 A
at rotary coding switch on switch position 16	93 A
• minimum	40.5 A
adjustable motor current	
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 1</li> </ul>	70.1 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 2</li> </ul>	76.2 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 3</li> </ul>	82.3 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 4</li> </ul>	88.3 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 5</li> </ul>	94.4 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 6</li> </ul>	100 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 7</li> </ul>	107 A
<ul> <li>for inside-delta circuit at rotary coding switch on switch position 8</li> <li>for inside-delta circuit at rotary coding switch on</li> </ul>	113 A
ior inside-delta circuit at rotary coding switch on switch position 9     for inside-delta circuit at rotary coding switch on	119 A 125 A
switch position 10  • for inside-delta circuit at rotary coding switch on	131 A
switch position 11  • for inside-delta circuit at rotary coding switch on	137 A
switch position 12  • for inside-delta circuit at rotary coding switch on	143 A
switch position 13 • for inside-delta circuit at rotary coding switch on	149 A
<ul><li>switch position 14</li><li>for inside-delta circuit at rotary coding switch on</li></ul>	155 A
<ul><li>switch position 15</li><li>for inside-delta circuit at rotary coding switch on</li></ul>	161 A
switch position 16	70.4.0
at inside-delta circuit minimum     minimum load [9/1]	70.1 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	40 W
• at 50 °C after startup	37 W
• at 60 °C after startup	35 W
power loss [W] at AC at current limitation 350 %	
at 40 °C during startup	1 270 W
at 50 °C during startup	1 077 W
at 60 °C during startup	959 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	

<ul> <li>at 50 Hz rated value</li> </ul>	24 V
<ul> <li>at 60 Hz rated value</li> </ul>	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	
<ul> <li>at DC rated value</li> </ul>	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 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 outputs	3
not parameterizable	2
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	1A
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting
mounting position	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 75 mm
<ul><li>downwards</li><li>at the side</li></ul>	5 mm
weight without packaging	6.9 kg
Connections/ Terminals	
type of electrical connection	
for main current circuit	box terminal
for control circuit	spring-loaded terminals
width of connection bar maximum	25 mm
type of connectable conductor cross-sections	
for main contacts for box terminal using the front	1x (2.5 16 mm²)
clamping point solid	
for main contacts for box terminal using the front clamping point finely stranded with core end processing.	1x (2.5 50 mm²)
<ul><li>for main contacts for box terminal using the front</li></ul>	1x (10 70 mm²)

clamping point stranded  * A RAYG cables for main contacts for box terminal using the first clamping point  * for main contacts for box terminal using the back clamping point and points solid  * for main contacts for box terminal using both clamping points firstly stranded with core end processing  * for main contacts for box terminal using both clamping points freight stranded with core end processing  * for main contacts for box terminal using both clamping points freight stranded with core end processing  * for main 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  * for control circuit finely stranded with core end processing  * A FOR Cables for control circuit solid  * A RAYG cables for control circuit s	ciamping point stranded	
• for main contacts for box terminal using the back clamping point solid  • all AWC cables for main contacts for box terminal using the back clamping point solid  • for main contacts for box terminal using both clamping points finely straned with core end processing  • for main contacts for box terminal using both clamping points stranedd  • for main contacts for box terminal using both clamping point stranedd  • for main contacts for box terminal using both clamping point stranedd  • for main contacts for box terminal using the back clamping point freely straned with core end processing  • for main contacts for box terminal using the back clamping point freely straned with core end processing  • for control circuit solid  • for control circuit finely straned with core end processing  • all AWC cables for control circuit solid  • between soft starter and motor maximum  • at the digital inputs at IC maximum  • the digital inputs at IC maximum  • the digital inputs at IC maximum  • transport 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	at AWG cables for main contacts for box terminal	1x (10 2/0)
a A AWG cables for main contacts for box terminal using the back clamping point solid bringing profits firely stranded with core end processing of main contacts for box terminal using both clamping points stranded of main contacts for box terminal using both clamping points stranded of main contacts for box terminal using both clamping points 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 Vype of connectable conductor cross-sections of control circuit solid of control circuit solid of control circuit solid of control circuit solid of the displayment of control circuit solid of the displayment of control circuit solid of the displayment of the display	for main contacts for box terminal using the back	1x (2.5 16 mm²)
• for main contacts for box terminal using both clamping points solid • for main contacts for box terminal using both clamping points finely stranded with core end processing • for main 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 finely stranded with core end processing • for main contacts for box terminal using the back clamping point finely stranded with core end processing • for main contacts for box terminal using the back clamping point finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for expectation of the digital inputs at AC maximum • at the digital inputs at Co maximum •	<ul> <li>at AWG cables for main contacts for box terminal</li> </ul>	1x (10 2/0)
• for main contacts for box terminal using both clamping points firsty standed with core end processing • for main contacts for box terminal using both clamping points farsty standed • for main contacts for box terminal using the back clamping point firsty stranded with core end processing • for main contacts for box terminal using the back clamping point firsty stranded with core end processing • for main contacts for box terminal using the back clamping point firsty stranded with core end processing • for control circuit firstly stranded with core end processing • for control circuit firstly stranded with core end processing • at AWO cables for control circuit finely stranded with core end processing • at AWO cables for control circuit finely stranded with core end processing • wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs	<ul> <li>for main contacts for box terminal using both</li> </ul>	2x (2.5 16 mm²)
• for main contacts for box terminal using both clamping points stranded     • for main contacts for box terminal using the back clamping point finely stranded with core end processing     • for main contacts for box terminal using the back clamping point stranded     • for control circuit soild     • for control circuit soild     • at AWG cables for control circuit finely stranded with core end processing     • at AWG cables for control circuit finely stranded with core end processing     • 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 AC maximum     • at for main contacts with screw-type terminals     • for auxiliary and control contacts with screw-type terminals     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for auxiliary and control contacts with screw-type terminals     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for auxiliary and control contacts with screw-type     • for main contacts with screw-type     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for main contacts with screw-type     • for main contacts with scre	<ul> <li>for main contacts for box terminal using both clamping points finely stranded with core end</li> </ul>	2x (2.5 35 mm²)
clamping point finely stranded with core end processing  • for main contacts for box terminal using the back clamping point stranded villous processing  • at AWG cables for control circuit solid villous processing villous processing villous	<ul> <li>for main contacts for box terminal using both</li> </ul>	2x (6 16 mm²), 2x (10 50 mm²)
clamping point stranded Type of connectable conductor cross-sections  • 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 AC maximum  • 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 fauxiliary 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 au	clamping point finely stranded with core end	1x (2.5 50 mm²)
• for control 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     • 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 AC maximum     • 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 arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with screw-type terminals     • for arizuliary and control contacts with s		1x (10 70 mm²)
• for control circuit finely stranded with core end processing  • 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 AC maximum • at the digital inputs at DC maximum • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for or main contacts with screw-type terminals • for main contacts with screw-type terminals • for mailiary and control contacts with screw-type terminals • for mailiary and control contacts with screw-type terminals • for mailiary 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 main contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type • for main contacts with screw-type • for main contacts w	type of connectable conductor cross-sections	
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 AC maximum at the digital inputs at AC maximum at the digital inputs at DC maximum at the digital inputs at AC maximum at the digital inputs at DC maximum at the digital inputs at AC maximum at the districular th	<ul> <li>for control circuit solid</li> </ul>	2x (0.25 1.5 mm²)
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 • at the digital inputs at DC maximum • at the digital inputs at DC maximum • 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 for main contacts with screw-type terminals • for for main contacts with screw-type terminals • for 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  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main contacts with screw-type terminals  **tightening torque [lbf-in] • for main conta		2x (0.25 1.5 mm²)
wire length  • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum • 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 fund contacts with screw-type terminals • for fund control contacts with screw-type terminals • for auxiliary and control contacts with screw-type • for C Please observe derating as of 1000 m, see catalog • for C Please observe derating a	<ul> <li>at AWG cables for control circuit solid</li> </ul>	2x (24 16)
between soft starter and motor maximum     at the digital inputs at AC maximum     at the digital inputs at DC 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 and 10.00 m. 53 lbfin     for auxiliary and control cont		2x (24 16)
at the digital inputs at AC 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  for auxiliary and control contacts with screw-type terminals  for auxiliary and control contacts with screw-type terminals  40 53 Ibf-in 7 10.3 Ibf-	wire length	
at the digital inputs at DC maximum tightening torque  for anxillary and control contacts with screw-type terminals  for auxillary and control contacts with screw-type terminals  for main contacts with screw-type terminals  for auxillary and control contacts with screw-type terminals  for auxillary and contr	<ul> <li>between soft starter and motor maximum</li> </ul>	800 m
tightening torque  • for main contacts with screw-type terminals  • for auxillary and control contacts with screw-type termina	<ul> <li>at the digital inputs at AC maximum</li> </ul>	100 m
• for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals tightening torque [lib-fin] • 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  **Mablent conditions**  installation altitude at height above sea level maximum amblent temperature • during poperation • during storage and transport • during storage and transport • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • profiled interference  communication/Protocol  communication module is supported • PROFIBUS  UL/GSA ratings  manufacturer's article number • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	<ul> <li>at the digital inputs at DC maximum</li> </ul>	1 000 m
• for auxillary and control contacts with screw-type terminals     • for main contacts with screw-type terminals     • for auxillary and control contacts with screw-type terminals     • for auxillary and control contacts with screw-type terminals     • for auxillary 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 and transport     • 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 module is supported     • PROFINET standard     • EtherNet/IP     • Modbus RTU     • Modbus RTU     • Modbus TCP     • PROFIBUS  UL/CSA ratings  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 at     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A; Iq = 10 kA     Siemens type: 3VA51, max. 125 A	tightening torque	
terminals  tightening torque [lbf·in]  • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals  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 geration 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 module is supported • PROFINET standard • EtherNet/IP • Modbus TCP • PROFIBUS  UL/CSA ratings  manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V according to IL — usable for High Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq = 10 kA		
• for main 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 peration 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 • Communication Protocol  Communication Protocol  Communication module is supported • PROFINET standard • EtherNet/IP • Modbus TCP • PROFIBUS  UL/CSA ratings  manufacturer's article number • of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	,	0.8 1.2 N·m
• for auxiliary and control contacts with screw-type terminals  Amblent 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 transport according to	tightening torque [lbf·in]	
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 storage according to IEC 60721  • during transport according to IEC 60721  • during transport according to IEC 60721  • during transport according to IEC 60721  • Moduring transport according to IEC 60721  EMC emitted interference  communication Protocol  communication module is supported  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus RTU  • PROFIBUS  Tyes  • Modbus TcP  • PROFIBUS  Tyes  • Modbus TcP  • PROFIBUS  To Circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for High Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA		
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  • during transport according to IEC 60721  • during transport according to IEC 60721  • Description according to IEC 60721  • PROFINET standard  • PROFINET standard  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus RTU  • Modbus RTU  • Modbus TCP  • PROFIBUS   **Ves  • PROFIBUS  **Ves  **Ves  • PROFIBUS  **Ves  **Ves  • Land according to UL  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V at  **Siemens type: 3VA51, max. 125 A; Iq = 10 kA  **Siemens type: 3VA51, max. 125 A; Iq = 10 kA  **Siemens type: 3VA51, max. 125 A; Iq = 10 kA  **Siemens type: 3VA51, max. 125 A; Iq = 10 kA	,	7 10.3 lbf·in
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  EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA		
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 storage according to IEC 60721  • during transport according to IEC 60721  • EMC emitted interference  Communication/ Protocol  communication module is supported  • PROFINET standard  • PROFINET standard  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
above  during storage and transport  environmental category  during operation according to IEC 60721  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  EMC emitted interference  communication Protocol  communication module is supported  PROFINET standard  EtherNet/IP  Modbus RTU  Modbus RTU  PROFIBUS  DL/CSA ratings  manufacturer's article number  of circuit breaker  usable for Standard Faults at 460/480 V according to UL  usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	ambient temperature	
environmental category  • during operation according to IEC 60721  • during storage according to IEC 60721  • during storage according to IEC 60721  • during transport according to IEC 60721  • EMC emitted interference  • PROFINET standard  • PROFINET standard  • EtherNet/IP  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  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 at  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	a during aparatics	·
• during operation according to IEC 60721     • during storage according to IEC 60721     • during storage according to IEC 60721     • during transport according to IEC 60721     • EMC emitted interference     • Communication/ Protocol  communication module is supported     • PROFINET standard     • EtherNet/IP     • Modbus RTU     • Modbus RTU     • Modbus TCP     • PROFIBUS  UL/CSA ratings  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 at     — usable for Standard Faults at 460/480 V at     Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	during operation	above
mist), 3S2 (sand must not get into the devices), 3M6  • during storage according to IEC 60721  • during transport according to IEC 60721  EMC emitted interference  Communication / Protocol  communication module is supported  • PROFINET standard  • Modbus RTU  • Modbus RTU  • Modbus TCP  • PROFIBUS  UL/CSA ratings  manufacturer's article number  • of circuit breaker  — usable for Standard Faults at 460/480 V according to UL  — usable for Standard Faults at 460/480 V at  siemens type: 3VA51, max. 125 A; Iq = 10 kA  siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	<b>.</b>	
ot get inside the devices), 1M4  oturing transport according to IEC 60721  EMC emitted interference  acc. to IEC 60947-4-2: Class A  Communication/ Protocol  communication module is supported  oturing transport according to IEC 60721  emitted interference  acc. to IEC 60947-4-2: Class A  Communication module is supported  oturing transport according to IEC 60721  2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)  acc. to IEC 60947-4-2: Class A  Communication module is supported  Yes  Yes  oturing transport according to IEC 60721  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2: Class A  Yes  Oturing transport according to IEC 60747-4-2:	during storage and transport	
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  — usable for High Faults at 460/480 V at Siemens type: 3VA51, max. 125 A; Iq = 10 kA  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA	during storage and transport     environmental category	-40 +80 °C  3K6 (no ice formation, only occasional condensation), 3C3 (no salt
Communication/ Protocol  communication module is supported  PROFINET standard  EtherNet/IP  Modbus RTU  Modbus RTU  Modbus TCP  PROFIBUS  Yes  PROFIBUS  Yes  Ves  Ves  Ves  Ves  Ves  Ves  Ves	<ul> <li>during storage and transport</li> <li>environmental category</li> <li>during operation according to IEC 60721</li> </ul>	-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
communication module is supported  PROFINET standard Yes  EtherNet/IP Modbus RTU Modbus RTU Modbus TCP PROFIBUS Yes PROFIBUS  Ves  Ves PROFIBUS  Ves  Ves Ves Ves Ves Ves Ves Ves Ves V	<ul> <li>during storage and transport</li> <li>environmental category</li> <li>during operation according to IEC 60721</li> <li>during storage according to IEC 60721</li> <li>during transport according to IEC 60721</li> </ul>	-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)
<ul> <li>PROFINET standard</li> <li>EtherNet/IP</li> <li>Modbus RTU</li> <li>Modbus TCP</li> <li>PROFIBUS</li> <li>Yes</li> <li>PROFIBUS</li> <li>Yes</li> <li>PROFIBUS</li> <li>Yes</li> <li>UL/CSA ratings</li> <li>manufacturer's article number</li> <li>of circuit breaker</li> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for High Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V at</li> <li>Siemens type: 3VA51, max. 125 A; Iq max = 65 kA</li> <li>Siemens type: 3VA51, max. 125 A; Iq max = 65 kA</li> </ul>	<ul> <li>during storage and transport</li> <li>environmental category</li> <li>during operation according to IEC 60721</li> <li>during storage according to IEC 60721</li> <li>during transport according to IEC 60721</li> <li>EMC emitted interference</li> </ul>	-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)
EtherNet/IP     Modbus RTU     Modbus TCP     Modbus TCP     PROFIBUS      Ves      Ves      Ves      Ves      Ves      Ves      Ves      Ves      Ves  UL/CSA ratings  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: 3VA51, max. 125 A; Iq max = 65 kA      Siemens type: 3VA51, max. 125 A; Iq max = 65 kA      Siemens type: 3VA51, max. 125 A; Iq max = 65 kA	during storage and transport     environmental category     during operation according to IEC 60721      during storage according to IEC 60721      during transport according to IEC 60721  EMC emitted interference  Communication/ Protocol	-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)
Modbus RTU Modbus TCP PROFIBUS Yes  UL/CSA ratings  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 according to UL  usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          EMC emitted interference  Communication/ Protocol  communication module is supported	-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
Modbus TCP     PROFIBUS     Yes  UL/CSA ratings  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 according to UL     usable for Standard Faults at 460/480 V at     Siemens type: 3VA51, max. 125 A; Iq max = 65 kA     Siemens type: 3VA51, max. 125 A; Iq max = 65 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          EMC emitted interference  Communication/ Protocol  communication module is supported         • PROFINET standard	-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
● PROFIBUS  UL/CSA ratings  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: 3VA51, max. 125 A; Iq max = 65 kA  to UL  — usable for Standard Faults at 460/480 V at  Siemens type: 3VA51, max. 125 A; Iq max = 65 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard         • EtherNet/IP	-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
UL/CSA ratings manufacturer's article number <ul> <li>of circuit breaker</li> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for High Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V at</li> </ul> Siemens type: 3VA51, max. 125 A; Iq = 10 kA Siemens type: 3VA51, max. 125 A; Iq max = 65 kA Siemens type: 3VA51, max. 125 A; Iq = 10 kA Siemens type: 3VA51, max. 125 A; Iq = 10 kA Siemens type: 3VA51, max. 125 A; Iq = 10 kA Siemens type: 3VA51, max. 125 A; Iq = 10 kA Siemens type: 3VA51, max. 125 A; Iq = 10 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported         • PROFINET standard         • EtherNet/IP         • Modbus RTU	-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  Yes  Yes  Yes
manufacturer's article number	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard          • EtherNet/IP          • Modbus RTU          • Modbus TCP	-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  Yes  Yes  Yes  Yes
<ul> <li>of circuit breaker         <ul> <li>usable for Standard Faults at 460/480 V according to UL</li> <li>usable for High Faults at 460/480 V according to UL</li> <li>usable for Standard Faults at 460/480 V at</li> </ul> </li> <li>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</li> <li>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</li> </ul>	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported         • PROFINET standard         • EtherNet/IP         • Modbus RTU         • Modbus TCP         • PROFIBUS	-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  Yes  Yes  Yes  Yes
<ul> <li>— usable for Standard Faults at 460/480 V according to UL</li> <li>— usable for High Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V at</li> <li>— usable for Standard Faults at 460/480 V at</li> <li>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</li> <li>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</li> </ul>	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard          • EtherNet/IP          • Modbus RTU          • Modbus TCP          • PROFIBUS  UL/CSA ratings	-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  Yes  Yes  Yes  Yes
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: 3VA51, max. 125 A; Iq max = 65 kA  Siemens type: 3VA51, max. 125 A; Iq = 10 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard          • EtherNet/IP          • Modbus RTU          • Modbus TCP          • PROFIBUS  UL/CSA ratings  manufacturer's article number	-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  Yes  Yes  Yes  Yes
<ul> <li>— usable for High Faults at 460/480 V according to UL</li> <li>— usable for Standard Faults at 460/480 V at</li> <li>Siemens type: 3VA51, max. 125 A; Iq max = 65 kA</li> <li>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</li> </ul>	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard          • EtherNet/IP          • Modbus RTU          • Modbus TCP          • PROFIBUS  UL/CSA ratings  manufacturer's article number          • of circuit breaker	-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  Yes  Yes  Yes  Yes  Yes  Yes
— usable for Standard Faults at 460/480 V at Siemens type: 3VA51, max. 125 A; Iq = 10 kA	during storage and transport     environmental category         • during operation according to IEC 60721          • during storage according to IEC 60721          • during transport according to IEC 60721          • during transport according to IEC 60721          • EMC emitted interference  Communication/ Protocol  communication module is supported          • PROFINET standard          • EtherNet/IP          • Modbus RTU          • Modbus TCP          • PROFIBUS  UL/CSA ratings  manufacturer's article number          • of circuit breaker          — usable for Standard Faults at 460/480 V	-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  Yes  Yes  Yes  Yes  Yes  Yes
	• during storage and transport     environmental category     • during operation according to IEC 60721      • during storage according to IEC 60721      • during transport according to IEC 60721      • during transport according to IEC 60721      EMC emitted interference  Communication/ Protocol  communication module is supported      • PROFINET standard      • EtherNet/IP      • Modbus RTU      • Modbus TCP      • PROFIBUS  UL/CSA ratings  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	-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  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye

— usable for High Faults at 460/480 V at insidedelta circuit according to UL

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

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

#### • of the fuse

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

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

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

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

## operating power [hp] for 3-phase motors

• at 200/208 V at 50 °C rated value

• at 220/230 V at 50 °C rated value

• at 460/480 V at 50 °C rated value

 $\bullet$  at 200/208 V at inside-delta circuit at 50  $^{\circ}\text{C}$  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

contact rating of auxiliary contacts according to UL

Siemens type: 3VA51, max. 125 A; Iq max = 65 kA

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

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

Type: Class RK5 / K5, max. 300 A; Iq = 10 kA

Type: Class J / L, max. 250 A; Iq = 100 kA

Type: Class RK5 / K5, max. 300 A; Iq = 10 kA

Type: Class J / L, max. 250 A; Iq = 100 kA

25 hp

30 hp

60 hp

40 hp

50 hp

100 hp

R300-B300

#### Safety related data

protection class IP on the front according to IEC

touch protection on the front according to IEC 60529 electromagnetic compatibility

IP00; IP20 with cover

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

## Certificates/ approvals

**General Product Approval** 

**EMC** 



Confirmation









# **Declaration of Conformity**

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other



Confirmation

#### **Further information**

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5227-3AC04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5227-3AC04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5227-3AC04

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5227-3AC04&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5227-3AC04&lang=en</a>

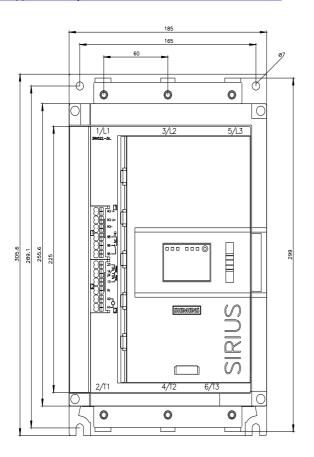
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RW5227-3AC04/char

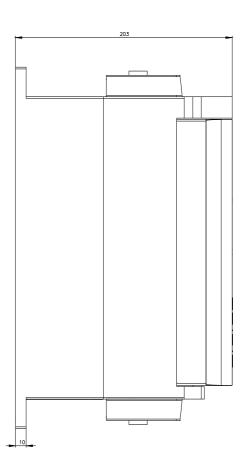
Characteristic: Installation altitude

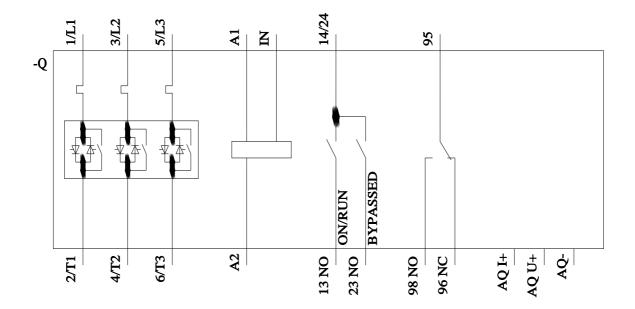
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5227-3AC04&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







last modified: 9/13/2022 🖸