



Figure similar

SIRIUS soft starter 200-480 V 171 A, 24 V AC/DC Spring-loaded terminals  
Thermistor input

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 the gG fuse usable up to 690 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
- of line contactor usable up to 480 V
- of line contactor usable up to 690 V

SIRIUS

Hybrid switching devices

Soft starter

3RW50

[3RW5980-OHS01](#)

[3RW5980-OHF00](#)

[3RW5980-OCS00](#)

[3RW5980-0CP00](#)

[3RW5980-0CT00](#)

[3RW5980-0CR00](#)

[3RW5980-0CE00](#)

[3VA2220-7MN32-0AA0](#); Type of assignment 1, I<sub>q</sub> = 20 kA

[3VA2220-7MN32-0AA0](#); Type of assignment 1, I<sub>q</sub> = 20 kA

[3NA3244-6](#); Type of coordination 1, I<sub>q</sub> = 65 kA

[3NE1 230-0](#); Type of coordination 2, I<sub>q</sub> = 65 kA

[3NE3 335](#); Type of coordination 2, I<sub>q</sub> = 65 kA

[3RT1056](#)

[3RT1064](#)

## General technical data

starting voltage [%]

30 ... 100 %

stopping voltage [%]

50 %; non-adjustable

start-up ramp time of soft starter

0 ... 20 s

ramp-down time of soft starter

0 ... 20 s

current limiting value [%] adjustable

130 ... 700 %

accuracy class according to IEC 61557-12

5 %

certificate of suitability

- CE marking
- UL approval
- CSA approval

Yes

Yes

Yes

product component

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

No

Yes

Yes

product feature integrated bypass contact system

Yes

number of controlled phases

2

trip class

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

buffering time in the event of power failure

|                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for control circuit</li> </ul>                                                                                                                                                                                                                                                                    | 100 ms                                                                                            |
| <b>insulation voltage rated value</b>                                                                                                                                                                                                                                                                                                                                          | 100 ms                                                                                            |
| <b>degree of pollution</b>                                                                                                                                                                                                                                                                                                                                                     | 600 V                                                                                             |
| <b>impulse voltage rated value</b>                                                                                                                                                                                                                                                                                                                                             | 3, acc. to IEC 60947-4-2                                                                          |
| <b>blocking voltage of the thyristor maximum</b>                                                                                                                                                                                                                                                                                                                               | 6 kV                                                                                              |
| <b>service factor</b>                                                                                                                                                                                                                                                                                                                                                          | 1 400 V                                                                                           |
| <b>surge voltage resistance rated value</b>                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                 |
| <b>maximum permissible voltage for safe isolation</b>                                                                                                                                                                                                                                                                                                                          | 6 kV                                                                                              |
| <ul style="list-style-type: none"> <li>• between main and auxiliary circuit</li> </ul>                                                                                                                                                                                                                                                                                         | 600 V                                                                                             |
| <b>shock resistance</b>                                                                                                                                                                                                                                                                                                                                                        | 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting                                    |
| <b>vibration resistance</b>                                                                                                                                                                                                                                                                                                                                                    | 15 mm to 6 Hz; 2g to 500 Hz                                                                       |
| utilization category according to IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                | AC-53a                                                                                            |
| <b>reference code according to IEC 81346-2</b>                                                                                                                                                                                                                                                                                                                                 | Q                                                                                                 |
| <b>Substance Prohibitance (Date)</b>                                                                                                                                                                                                                                                                                                                                           | 09/23/2019                                                                                        |
| <b>product function</b>                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |
| <ul style="list-style-type: none"> <li>• ramp-up (soft starting)</li> <li>• ramp-down (soft stop)</li> <li>• Soft Torque</li> <li>• adjustable current limitation</li> <li>• pump ramp down</li> <li>• intrinsic device protection</li> <li>• motor overload protection</li> </ul>                                                                                             | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; Type A PTC or Klixon / Thermoclick                                                           |
| <ul style="list-style-type: none"> <li>• evaluation of thermistor motor protection</li> <li>• auto-RESET</li> <li>• manual RESET</li> <li>• remote reset</li> <li>• communication function</li> <li>• operating measured value display</li> <li>• error logbook</li> <li>• via software parameterizable</li> <li>• via software configurable</li> <li>• PROFlenergy</li> </ul> | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; By turning off the control supply voltage                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; Only in conjunction with special accessories                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; Only in conjunction with special accessories                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                | No                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes; in connection with the PROFINET Standard communication module                                |
|                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                | No                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                | No                                                                                                |

## Power Electronics

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>operational current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |
| <ul style="list-style-type: none"> <li>• at 40 °C rated value</li> <li>• at 50 °C rated value</li> <li>• at 60 °C rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                         | 171 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 153 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 141 A         |
| <b>operating voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |
| <ul style="list-style-type: none"> <li>• rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 200 ... 480 V |
| <b>relative negative tolerance of the operating voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -15 %         |
| <b>relative positive tolerance of the operating voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 %          |
| <b>operating power for 3-phase motors</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |
| <ul style="list-style-type: none"> <li>• at 230 V at 40 °C rated value</li> <li>• at 400 V at 40 °C rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                       | 45 kW         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 90 kW         |
| <b>Operating frequency 1 rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 50 Hz         |
| <b>Operating frequency 2 rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 60 Hz         |
| <b>relative negative tolerance of the operating frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -10 %         |
| <b>relative positive tolerance of the operating frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 %          |
| <b>adjustable motor current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
| <ul style="list-style-type: none"> <li>• at rotary coding switch on switch position 1</li> <li>• at rotary coding switch on switch position 2</li> <li>• at rotary coding switch on switch position 3</li> <li>• at rotary coding switch on switch position 4</li> <li>• at rotary coding switch on switch position 5</li> <li>• at rotary coding switch on switch position 6</li> <li>• at rotary coding switch on switch position 7</li> <li>• at rotary coding switch on switch position 8</li> <li>• at rotary coding switch on switch position 9</li> </ul> | 81 A          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87 A          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 93 A          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 99 A          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 105 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 111 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 117 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 123 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 129 A         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at rotary coding switch on switch position 10</li> <li>• at rotary coding switch on switch position 11</li> <li>• at rotary coding switch on switch position 12</li> <li>• at rotary coding switch on switch position 13</li> <li>• at rotary coding switch on switch position 14</li> <li>• at rotary coding switch on switch position 15</li> <li>• at rotary coding switch on switch position 16</li> <li>• minimum</li> </ul> | 135 A<br>141 A<br>147 A<br>153 A<br>159 A<br>165 A<br>171 A<br>81 A                                                                                                                                                                |
| <b>minimum load [%]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 15 %; Relative to smallest settable I <sub>e</sub>                                                                                                                                                                                 |
| <b>power loss [W] for rated value of the current at AC</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• at 40 °C after startup</li> <li>• at 50 °C after startup</li> <li>• at 60 °C after startup</li> </ul>                                                                                                                                                                                                                                                                                                                             | 29 W<br>23 W<br>20 W                                                                                                                                                                                                               |
| <b>power loss [W] at AC at current limitation 350 %</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• at 40 °C during startup</li> <li>• at 50 °C during startup</li> <li>• at 60 °C during startup</li> </ul>                                                                                                                                                                                                                                                                                                                          | 1 751 W<br>1 478 W<br>1 308 W                                                                                                                                                                                                      |
| <b>type of the motor protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | Electronic, tripping in the event of thermal overload of the motor                                                                                                                                                                 |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                    |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | AC/DC                                                                                                                                                                                                                              |
| <b>control supply voltage at AC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   | 24 V<br>24 V                                                                                                                                                                                                                       |
| <b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                            | -20 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                            | 20 %                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                            | -20 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                            | 20 %                                                                                                                                                                                                                               |
| <b>control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50 ... 60 Hz                                                                                                                                                                                                                       |
| <b>relative negative tolerance of the control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                 | -10 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                 | 10 %                                                                                                                                                                                                                               |
| <b>control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• at DC rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      | 24 V                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the control supply voltage at DC</b>                                                                                                                                                                                                                                                                                                                                                                                                     | -20 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at DC</b>                                                                                                                                                                                                                                                                                                                                                                                                     | 20 %                                                                                                                                                                                                                               |
| <b>control supply current in standby mode rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                  | 160 mA                                                                                                                                                                                                                             |
| <b>holding current in bypass operation rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | 360 mA                                                                                                                                                                                                                             |
| <b>inrush current by closing the bypass contacts maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                               | 7.6 A                                                                                                                                                                                                                              |
| <b>inrush current peak at application of control supply voltage maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                | 3.3 A                                                                                                                                                                                                                              |
| <b>duration of inrush current peak at application of control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                                            | 12.1 ms                                                                                                                                                                                                                            |
| <b>design of the overvoltage protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | Varistor                                                                                                                                                                                                                           |
| <b>design of short-circuit protection for control circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                              | 4 A gG fuse (I <sub>cu</sub> =1 kA), 6 A quick-acting fuse (I <sub>cu</sub> =1 kA), C1 miniature circuit breaker (I <sub>cu</sub> = 600 A), C6 miniature circuit breaker (I <sub>cu</sub> = 300 A); Is not part of scope of supply |
| <b>Inputs/ Outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                    |
| <b>number of digital inputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                                                                                                                                                                                                                                  |
| <b>number of digital outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• not parameterizable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                    | 2                                                                                                                                                                                                                                  |
| <b>digital output version</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 normally-open contacts (NO) / 1 changeover contact (CO)                                                                                                                                                                          |
| <b>number of analog outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0                                                                                                                                                                                                                                  |
| <b>switching capacity current of the relay outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• at AC-15 at 250 V rated value</li> <li>• at DC-13 at 24 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                  | 3 A<br>1 A                                                                                                                                                                                                                         |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back                                                                                                           |

|                                             |              |
|---------------------------------------------|--------------|
| <b>fastening method</b>                     | screw fixing |
| <b>height</b>                               | 198 mm       |
| <b>width</b>                                | 120 mm       |
| <b>depth</b>                                | 249 mm       |
| required spacing with side-by-side mounting |              |
| • forwards                                  | 10 mm        |
| • backwards                                 | 0 mm         |
| • upwards                                   | 100 mm       |
| • downwards                                 | 75 mm        |
| • at the side                               | 5 mm         |
| <b>weight without packaging</b>             | 5.2 kg       |

#### Connections/ Terminals

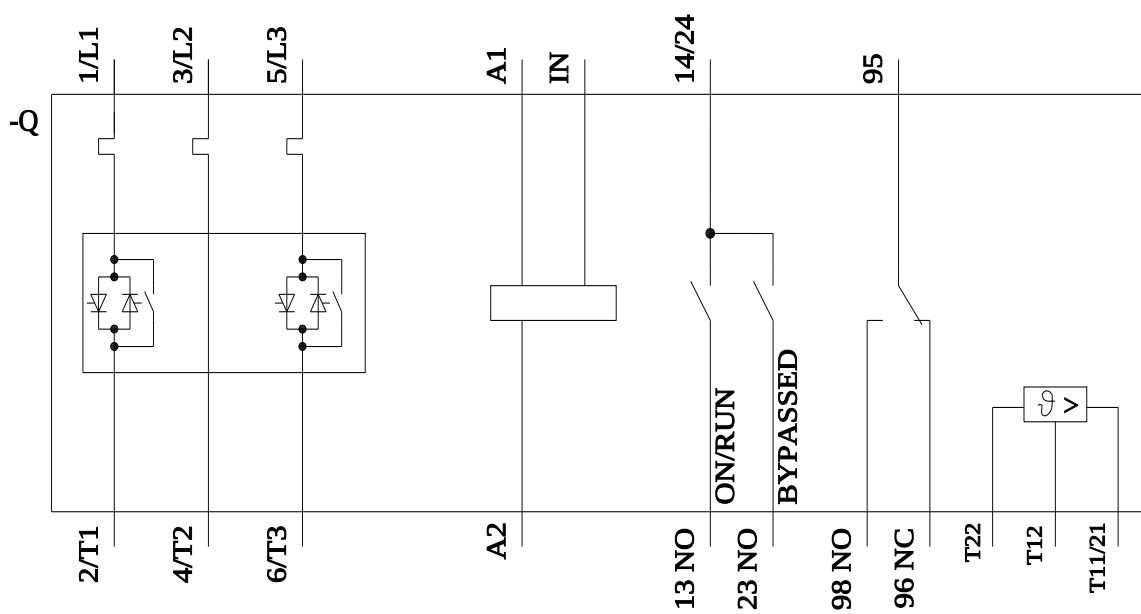
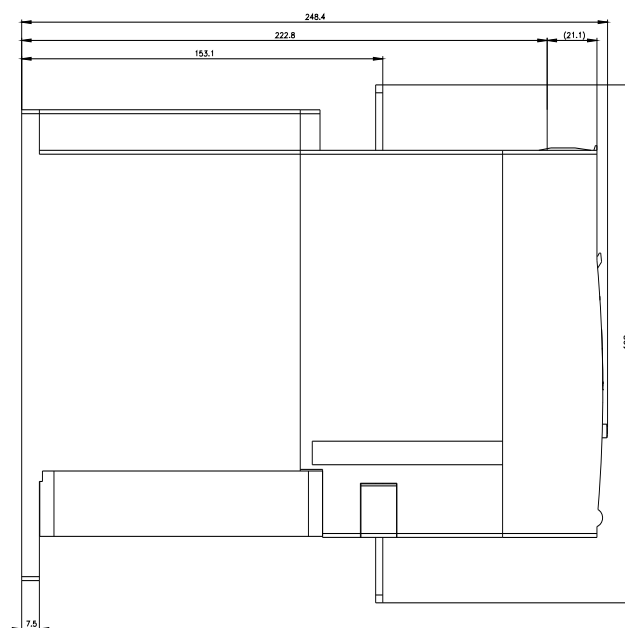
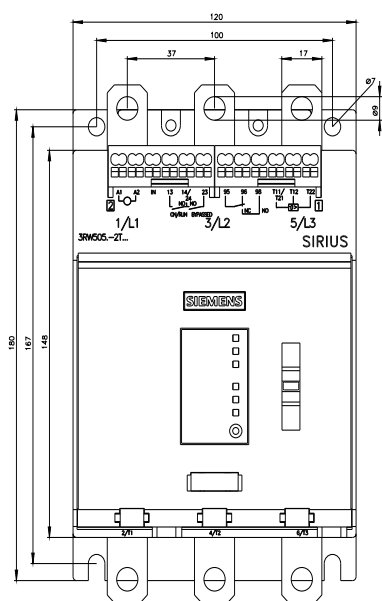
|                                                                                                                 |                                                     |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>type of electrical connection</b>                                                                            | busbar connection                                   |
| • for main current circuit                                                                                      | spring-loaded terminals                             |
| • for control circuit                                                                                           | 25 mm                                               |
| <b>width of connection bar maximum</b>                                                                          |                                                     |
| <b>wire length for thermistor connection</b>                                                                    |                                                     |
| • with conductor cross-section = 0.5 mm <sup>2</sup> maximum                                                    | 50 m                                                |
| • with conductor cross-section = 1.5 mm <sup>2</sup> maximum                                                    | 150 m                                               |
| • with conductor cross-section = 2.5 mm <sup>2</sup> maximum                                                    | 250 m                                               |
| <b>type of connectable conductor cross-sections</b>                                                             |                                                     |
| • for main contacts for box terminal using the front clamping point solid                                       | 16 ... 120 mm <sup>2</sup>                          |
| • for main contacts for box terminal using the front clamping point finely stranded with core end processing    | 16 ... 120 mm <sup>2</sup>                          |
| • for main contacts for box terminal using the front clamping point finely stranded without core end processing | 10 ... 120 mm <sup>2</sup>                          |
| • for main contacts for box terminal using the front clamping point stranded                                    | 16 ... 70 mm <sup>2</sup>                           |
| • at AWG cables for main contacts for box terminal using the front clamping point                               | 6 ... 250 kcmil                                     |
| • for main contacts for box terminal using the back clamping point solid                                        | 16 ... 120 mm <sup>2</sup>                          |
| • at AWG cables for main contacts for box terminal using the back clamping point                                | 6 ... 250 kcmil                                     |
| • for main contacts for box terminal using both clamping points solid                                           | max. 1x 95 mm <sup>2</sup> , 1x 120 mm <sup>2</sup> |
| • for main contacts for box terminal using both clamping points finely stranded with core end processing        | max. 1x 95 mm <sup>2</sup> , 1x 120 mm <sup>2</sup> |
| • for main contacts for box terminal using both clamping points finely stranded without core end processing     | max. 1x 95 mm <sup>2</sup> , 1x 120 mm <sup>2</sup> |
| • for main contacts for box terminal using both clamping points stranded                                        | max. 2x 120 mm <sup>2</sup>                         |
| • for main contacts for box terminal using the back clamping point finely stranded with core end processing     | 16 ... 120 mm <sup>2</sup>                          |
| • for main contacts for box terminal using the back clamping point finely stranded without core end processing  | 10 ... 120 mm <sup>2</sup>                          |
| • for main contacts for box terminal using the back clamping point stranded                                     | 16 ... 120 mm <sup>2</sup>                          |
| <b>type of connectable conductor cross-sections</b>                                                             |                                                     |
| • at AWG cables for main current circuit solid                                                                  | 4 ... 250 kcmil                                     |
| • for DIN cable lug for main contacts stranded                                                                  | 16 ... 95 mm <sup>2</sup>                           |
| • for DIN cable lug for main contacts finely stranded                                                           | 25 ... 120 mm <sup>2</sup>                          |
| <b>type of connectable conductor cross-sections</b>                                                             |                                                     |
| • for control circuit solid                                                                                     | 2x (0.25 ... 1.5 mm <sup>2</sup> )                  |
| • for control circuit finely stranded with core end processing                                                  | 2x (0.25 ... 1.5 mm <sup>2</sup> )                  |
| • at AWG cables for control circuit solid                                                                       | 2x (24 ... 16)                                      |
| • at AWG cables for control circuit finely stranded with core end processing                                    | 2x (24 ... 16)                                      |
| <b>wire length</b>                                                                                              |                                                     |
| • between soft starter and motor maximum                                                                        | 800 m                                               |

|                                                                                                                                                                                                                                                    |                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at the digital inputs at AC maximum</li> </ul>                                                                                                                                                            | 1 000 m                                                                                                                 |
| <b>tightening torque</b>                                                                                                                                                                                                                           |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>                                                                            | 10 ... 14 N·m<br>0.8 ... 1.2 N·m                                                                                        |
| <b>tightening torque [lbf·in]</b>                                                                                                                                                                                                                  |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>                                                                            | 89 ... 124 lbf·in<br>7 ... 10.3 lbf·in                                                                                  |
| <b>Ambient conditions</b>                                                                                                                                                                                                                          |                                                                                                                         |
| installation altitude at height above sea level maximum                                                                                                                                                                                            | 5 000 m; derating as of 1000 m, see Manual                                                                              |
| <b>ambient temperature</b>                                                                                                                                                                                                                         |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                                                                                                                                                               | -25 ... +60 °C; Please observe derating at temperatures of 40 °C or above                                               |
| <ul style="list-style-type: none"> <li>• during storage and transport</li> </ul>                                                                                                                                                                   | -40 ... +80 °C                                                                                                          |
| <b>environmental category</b>                                                                                                                                                                                                                      |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> </ul>                                                                                                                                                        | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <ul style="list-style-type: none"> <li>• during storage according to IEC 60721</li> </ul>                                                                                                                                                          | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4                 |
| <ul style="list-style-type: none"> <li>• during transport according to IEC 60721</li> </ul>                                                                                                                                                        | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)                                                                             |
| <b>EMC emitted interference</b>                                                                                                                                                                                                                    | acc. to IEC 60947-4-2: Class A                                                                                          |
| <b>Communication/ Protocol</b>                                                                                                                                                                                                                     |                                                                                                                         |
| <b>communication module is supported</b>                                                                                                                                                                                                           |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• PROFINET standard</li> </ul>                                                                                                                                                                              | Yes                                                                                                                     |
| <ul style="list-style-type: none"> <li>• EtherNet/IP</li> </ul>                                                                                                                                                                                    | Yes                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Modbus RTU</li> </ul>                                                                                                                                                                                     | Yes                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Modbus TCP</li> </ul>                                                                                                                                                                                     | Yes                                                                                                                     |
| <ul style="list-style-type: none"> <li>• PROFIBUS</li> </ul>                                                                                                                                                                                       | Yes                                                                                                                     |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                              |                                                                                                                         |
| <b>manufacturer's article number</b>                                                                                                                                                                                                               |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• of circuit breaker <ul style="list-style-type: none"> <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> </ul> </li> </ul> | Siemens type: 3VA5225, max. 250 A; Iq = 10 kA<br><br>Siemens type: 3VA52, max. 250 A; Iq max = 65 kA                    |
| <ul style="list-style-type: none"> <li>• of the fuse <ul style="list-style-type: none"> <li>— usable for Standard Faults up to 575/600 V according to UL</li> <li>— usable for High Faults up to 575/600 V according to UL</li> </ul> </li> </ul>  | Type: Class RK5 / K5, max. 400 A; Iq = 10 kA<br><br>Type: Class J, max. 350 A; Iq = 100 kA                              |
| <b>operating power [hp] for 3-phase motors</b>                                                                                                                                                                                                     |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• at 200/208 V at 50 °C rated value</li> <li>• at 220/230 V at 50 °C rated value</li> <li>• at 460/480 V at 50 °C rated value</li> </ul>                                                                    | 50 hp<br>50 hp<br>100 hp                                                                                                |
| <b>Safety related data</b>                                                                                                                                                                                                                         |                                                                                                                         |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                                                                                                                     | IP00; IP20 with cover                                                                                                   |
| <b>touch protection on the front according to IEC 60529</b>                                                                                                                                                                                        | finger-safe, for vertical contact from the front with cover                                                             |
| <b>ATEX</b>                                                                                                                                                                                                                                        |                                                                                                                         |
| <b>certificate of suitability</b>                                                                                                                                                                                                                  |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• ATEX</li> <li>• IECEx</li> <li>• UKEX</li> </ul>                                                                                                                                                          | Yes<br>Yes<br>Yes                                                                                                       |
| <b>hardware fault tolerance according to IEC 61508 relating to ATEX</b>                                                                                                                                                                            | 0                                                                                                                       |
| <b>PFDavg with low demand rate according to IEC 61508 relating to ATEX</b>                                                                                                                                                                         | 0.09                                                                                                                    |
| <b>PFHD with high demand rate according to EN 62061 relating to ATEX</b>                                                                                                                                                                           | 9E-6 1/h                                                                                                                |
| <b>Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX</b>                                                                                                                                                                        | SIL1                                                                                                                    |
| <b>T1 value for proof test interval or service life according to IEC 61508 relating to ATEX</b>                                                                                                                                                    | 3 a                                                                                                                     |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                     |                                                                                                                         |

|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| General Product Approval                                                          |                                                                                   |                                                                                   |                                                                                   | For use in hazardous locations                                                      |                                                                                     |
|  |  | <a href="#">Confirmation</a>                                                      |  |  |  |
| For use in hazardous locations                                                    |                                                                                   | Declaration of Conformity                                                         |                                                                                   | Test Certificates                                                                   | Marine / Shipping                                                                   |
|  | <a href="#">Explosion Protection Certificate</a>                                  |  |  | <a href="#">Type Test Certificates/Test Report</a>                                  |  |
| Marine / Shipping                                                                 |                                                                                   | other                                                                             |                                                                                   |                                                                                     |                                                                                     |
|  |  | <a href="#">Confirmation</a>                                                      |                                                                                   |                                                                                     |                                                                                     |

#### 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=3RW5056-2TB04>  
 Cax online generator  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5056-2TB04>  
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5056-2TB04>  
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5056-2TB04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5056-2TB04&lang=en)  
 Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current  
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5056-2TB04/char>  
 Characteristic: Installation altitude  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5056-2TB04&objecttype=14&gridview=view1>  
 Simulation Tool for Soft Starters (STS)  
<https://support.industry.siemens.com/cs/ww/en/view/101494917>







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