



SIRIUS soft starter 200-600 V 93 A, 110-250 V AC Screw terminals Thermistor input

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>product brand name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SIRIUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>product category</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Hybrid switching devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>product designation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Soft starter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>product type designation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3RW52                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>manufacturer's article number</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• of standard HMI module usable</li> <li>• of high feature HMI module usable</li> <li>• of communication module PROFINET standard usable</li> <li>• of communication module PROFIBUS usable</li> <li>• of communication module Modbus TCP usable</li> <li>• of communication module Modbus RTU usable</li> <li>• of communication module Ethernet/IP</li> <li>• of circuit breaker usable at 400 V</li> <li>• of circuit breaker usable at 500 V</li> <li>• of circuit breaker usable at 400 V at inside-delta circuit</li> <li>• of circuit breaker usable at 500 V at inside-delta circuit</li> <li>• of the gG fuse usable up to 690 V</li> <li>• of the gG fuse usable at inside-delta circuit up to 500 V</li> <li>• of full range R fuse link for semiconductor protection usable up to 690 V</li> <li>• of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul> | <a href="#">3RW5980-0HS00</a><br><a href="#">3RW5980-0HF00</a><br><a href="#">3RW5980-0CS00</a><br><a href="#">3RW5980-0CP00</a><br><a href="#">3RW5980-0CT00</a><br><a href="#">3RW5980-0CR00</a><br><a href="#">3RW5980-0CE00</a><br><a href="#">3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 15 kA, CLASS 10</a><br><a href="#">3VA2216-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10</a><br><a href="#">3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 15 kA, CLASS 10</a><br><a href="#">3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 10 kA, CLASS 10</a><br><a href="#">3NA3136-6; Type of coordination 1, Iq = 65 kA</a><br><a href="#">3NA3136-6; Type of coordination 1, Iq = 65 kA</a><br><a href="#">3NE1224-0; Type of coordination 2, Iq = 65 kA</a><br><br><a href="#">3NE4124; Type of coordination 2, Iq = 65 kA</a> |

### General technical data

|                                                                                                                                                    |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <b>starting voltage [%]</b>                                                                                                                        | 30 ... 100 %         |
| <b>stopping voltage [%]</b>                                                                                                                        | 50 %; non-adjustable |
| <b>start-up ramp time of soft starter</b>                                                                                                          | 0 ... 20 s           |
| <b>current limiting value [%] adjustable</b>                                                                                                       | 130 ... 700 %        |
| <b>certificate of suitability</b>                                                                                                                  |                      |
| <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> </ul>                                      | Yes<br>Yes<br>Yes    |
| <b>product component</b>                                                                                                                           |                      |
| <ul style="list-style-type: none"> <li>• HMI-High Feature</li> <li>• is supported HMI-Standard</li> <li>• is supported HMI-High Feature</li> </ul> | No<br>Yes<br>Yes     |
| <b>product feature integrated bypass contact system</b>                                                                                            | Yes                  |
| <b>number of controlled phases</b>                                                                                                                 | 3                    |

|                                                              |                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>buffering time in the event of power failure</b>          |                                                                                                                                                                                                                                                                                                                                                         |
| • for main current circuit                                   | 100 ms                                                                                                                                                                                                                                                                                                                                                  |
| • for control circuit                                        | 100 ms                                                                                                                                                                                                                                                                                                                                                  |
| <b>insulation voltage rated value</b>                        | 600 V                                                                                                                                                                                                                                                                                                                                                   |
| <b>degree of pollution</b>                                   | 3, acc. to IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                |
| <b>impulse voltage rated value</b>                           | 6 kV                                                                                                                                                                                                                                                                                                                                                    |
| <b>blocking voltage of the thyristor maximum</b>             | 1 800 V                                                                                                                                                                                                                                                                                                                                                 |
| <b>service factor</b>                                        | 1                                                                                                                                                                                                                                                                                                                                                       |
| <b>surge voltage resistance rated value</b>                  | 6 kV                                                                                                                                                                                                                                                                                                                                                    |
| <b>maximum permissible voltage for protective separation</b> |                                                                                                                                                                                                                                                                                                                                                         |
| • between main and auxiliary circuit                         | 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; 2 g 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 (day/month/year)</b>               | 02/15/2018                                                                                                                                                                                                                                                                                                                                              |
| <b>SVHC substance name</b>                                   | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1<br>Dibutylbis(pentane-2,4-dionato-O,O')tin CAS-No. 22673-19-4<br>Diboron trioxide CAS-No. 1303-86-2 |
| <b>Net Weight</b>                                            | 6.245 kg                                                                                                                                                                                                                                                                                                                                                |
| <b>product function</b>                                      |                                                                                                                                                                                                                                                                                                                                                         |
| • ramp-up (soft starting)                                    | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • soft stopping                                              | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • Soft Torque                                                | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • adjustable current limitation                              | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • pump stop                                                  | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • intrinsic device protection                                | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • motor overload protection                                  | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)                                                                                                                                                                                                                                                       |
| • evaluation of thermistor motor protection                  | Yes; Type A PTC or Klaxon / Thermoclick                                                                                                                                                                                                                                                                                                                 |
| • inside-delta circuit                                       | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • auto-RESET                                                 | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • manual RESET                                               | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • remote reset                                               | Yes; By turning off the control supply voltage                                                                                                                                                                                                                                                                                                          |
| • communication function                                     | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • operating measured value display                           | Yes; Only in conjunction with special accessories                                                                                                                                                                                                                                                                                                       |
| • error logbook                                              | Yes; Only in conjunction with special accessories                                                                                                                                                                                                                                                                                                       |
| • via software parameterizable                               | No                                                                                                                                                                                                                                                                                                                                                      |
| • via software configurable                                  | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • <b>PROFenergy</b>                                          | Yes; in connection with the PROFINET Standard communication module                                                                                                                                                                                                                                                                                      |
| • <b>firmware update</b>                                     | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • <b>removable terminal for control circuit</b>              | Yes                                                                                                                                                                                                                                                                                                                                                     |
| • torque control                                             | No                                                                                                                                                                                                                                                                                                                                                      |
| • analog output                                              | No                                                                                                                                                                                                                                                                                                                                                      |
| <b>Power Electronics</b>                                     |                                                                                                                                                                                                                                                                                                                                                         |
| <b>operational current</b>                                   |                                                                                                                                                                                                                                                                                                                                                         |
| • at 40 °C rated value                                       | 93 A                                                                                                                                                                                                                                                                                                                                                    |
| • at 50 °C rated value                                       | 82.5 A                                                                                                                                                                                                                                                                                                                                                  |
| • at 60 °C rated value                                       | 75.5 A                                                                                                                                                                                                                                                                                                                                                  |
| <b>operational current at inside-delta circuit</b>           |                                                                                                                                                                                                                                                                                                                                                         |
| • at 40 °C rated value                                       | 161 A                                                                                                                                                                                                                                                                                                                                                   |
| • at 50 °C rated value                                       | 143 A                                                                                                                                                                                                                                                                                                                                                   |
| • at 60 °C rated value                                       | 131 A                                                                                                                                                                                                                                                                                                                                                   |
| <b>operating voltage</b>                                     |                                                                                                                                                                                                                                                                                                                                                         |
| • rated value                                                | 200 ... 600 V                                                                                                                                                                                                                                                                                                                                           |
| • at inside-delta circuit rated value                        | 200 ... 600 V                                                                                                                                                                                                                                                                                                                                           |

|                                                                                     |        |
|-------------------------------------------------------------------------------------|--------|
| <b>relative negative tolerance of the operating voltage</b>                         | -15 %  |
| <b>relative positive tolerance of the operating voltage</b>                         | 10 %   |
| <b>relative negative tolerance of the operating voltage at inside-delta circuit</b> | -15 %  |
| <b>relative positive tolerance of the operating voltage at inside-delta circuit</b> | 10 %   |
| <b>operating power for 3-phase motors</b>                                           |        |
| • at 230 V at 40 °C rated value                                                     | 22 kW  |
| • at 230 V at inside-delta circuit at 40 °C rated value                             | 45 kW  |
| • at 400 V at 40 °C rated value                                                     | 45 kW  |
| • at 400 V at inside-delta circuit at 40 °C rated value                             | 90 kW  |
| • at 500 V at 40 °C rated value                                                     | 55 kW  |
| • at 500 V at inside-delta circuit at 40 °C rated value                             | 110 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>                                                     |        |
| • at rotary coding switch on switch position 1                                      | 40.5 A |
| • at rotary coding switch on switch position 2                                      | 44 A   |
| • at rotary coding switch on switch position 3                                      | 47.5 A |
| • at rotary coding switch on switch position 4                                      | 51 A   |
| • at rotary coding switch on switch position 5                                      | 54.5 A |
| • at rotary coding switch on switch position 6                                      | 58 A   |
| • at rotary coding switch on switch position 7                                      | 61.5 A |
| • at rotary coding switch on switch position 8                                      | 65 A   |
| • at rotary coding switch on switch position 9                                      | 68.5 A |
| • at rotary coding switch on switch position 10                                     | 72 A   |
| • 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 |
| <b>adjustable motor current</b>                                                     |        |
| • for inside-delta circuit at rotary coding switch on switch position 1             | 70.1 A |
| • for inside-delta circuit at rotary coding switch on switch position 2             | 76.2 A |
| • for inside-delta circuit at rotary coding switch on switch position 3             | 82.3 A |
| • for inside-delta circuit at rotary coding switch on switch position 4             | 88.3 A |
| • for inside-delta circuit at rotary coding switch on switch position 5             | 94.4 A |
| • for inside-delta circuit at rotary coding switch on switch position 6             | 100 A  |
| • for inside-delta circuit at rotary coding switch on switch position 7             | 107 A  |
| • for inside-delta circuit at rotary coding switch on switch position 8             | 113 A  |
| • for inside-delta circuit at rotary coding switch on switch position 9             | 119 A  |
| • for inside-delta circuit at rotary coding switch on switch position 10            | 125 A  |
| • for inside-delta circuit at rotary coding switch on switch position 11            | 131 A  |
| • for inside-delta circuit at rotary coding switch on switch position 12            | 137 A  |
| • for inside-delta circuit at rotary coding switch on switch position 13            | 143 A  |
| • for inside-delta circuit at rotary coding switch on switch position 14            | 149 A  |

|                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for inside-delta circuit at rotary coding switch on switch position 15</li> <li>• for inside-delta circuit at rotary coding switch on switch position 16</li> <li>• at inside-delta circuit minimum</li> </ul> | 155 A<br>161 A<br>70.1 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>                                               | 40 W<br>37 W<br>35 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>                                                | 1 270 W<br>1 077 W<br>959 W                                                                                                                                                                                                        |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                    | AC                                                                                                                                                                                                                                 |
| <b>control supply voltage at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                    | 110 ... 250 V<br>110 ... 250 V                                                                                                                                                                                                     |
| <b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                         | -15 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                         | 10 %                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                         | -15 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                         | 10 %                                                                                                                                                                                                                               |
| <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 current in standby mode rated value</b>                                                                                                                                                                                               | 30 mA                                                                                                                                                                                                                              |
| <b>holding current in bypass operation rated value</b>                                                                                                                                                                                                  | 75 mA                                                                                                                                                                                                                              |
| <b>inrush current by closing the bypass contacts maximum</b>                                                                                                                                                                                            | 2.5 A                                                                                                                                                                                                                              |
| inrush current peak at application of control supply voltage maximum                                                                                                                                                                                    | 12.2 A                                                                                                                                                                                                                             |
| duration of inrush current peak at application of control supply voltage                                                                                                                                                                                | 2.2 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> <ul style="list-style-type: none"> <li>• not parameterizable</li> </ul>                                                                                                                                                | 3<br>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>                                                                                                                                                                                                                                           | 306 mm                                                                                                                                                                                                                             |
| <b>width</b>                                                                                                                                                                                                                                            | 185 mm                                                                                                                                                                                                                             |
| <b>depth</b>                                                                                                                                                                                                                                            | 203 mm                                                                                                                                                                                                                             |
| required spacing with side-by-side mounting <ul style="list-style-type: none"> <li>• forwards</li> <li>• backwards</li> <li>• upwards</li> </ul>                                                                                                        | 10 mm<br>0 mm<br>100 mm                                                                                                                                                                                                            |

|                                                                                                                             |                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• downwards</li> </ul>                                                               | 75 mm                                                                                                                   |
| <ul style="list-style-type: none"> <li>• at the side</li> </ul>                                                             | 5 mm                                                                                                                    |
| <b>weight without packaging</b>                                                                                             | 6.9 kg                                                                                                                  |
| <b>Connections/ Terminals</b>                                                                                               |                                                                                                                         |
| <b>type of electrical connection</b>                                                                                        |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>                                                | box terminal                                                                                                            |
| <ul style="list-style-type: none"> <li>• for control circuit</li> </ul>                                                     | screw-type terminals                                                                                                    |
| <b>width of connection bar maximum</b>                                                                                      | 25 mm                                                                                                                   |
| <b>wire length for thermistor connection</b>                                                                                |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> </ul>               | 50 m                                                                                                                    |
| <ul style="list-style-type: none"> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> </ul>               | 150 m                                                                                                                   |
| <ul style="list-style-type: none"> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>               | 250 m                                                                                                                   |
| <b>type of connectable conductor cross-sections for main contacts for box terminal</b>                                      |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• using the front clamping point solid</li> </ul>                                    | 1x (2.5 ... 16 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• using the front clamping point finely stranded with core end processing</li> </ul> | 1x (2.5 ... 50 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• using the front clamping point stranded</li> </ul>                                 | 1x (10 ... 70 mm <sup>2</sup> )                                                                                         |
| <ul style="list-style-type: none"> <li>• using the back clamping point solid</li> </ul>                                     | 1x (2.5 ... 16 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• r box terminal using the back clamping point</li> </ul>                            | 1x (10 ... 2/0)                                                                                                         |
| <ul style="list-style-type: none"> <li>• using both clamping points solid</li> </ul>                                        | 2x (2.5 ... 16 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• using both clamping points finely stranded with core end processing</li> </ul>     | 2x (2.5 ... 35 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• using both clamping points stranded</li> </ul>                                     | 2x (6 ... 16 mm <sup>2</sup> ), 2x (10 ... 50 mm <sup>2</sup> )                                                         |
| <ul style="list-style-type: none"> <li>• using the back clamping point finely stranded with core end processing</li> </ul>  | 1x (2.5 ... 50 mm <sup>2</sup> )                                                                                        |
| <ul style="list-style-type: none"> <li>• using the back clamping point stranded</li> </ul>                                  | 1x (10 ... 70 mm <sup>2</sup> )                                                                                         |
| <b>type of connectable conductor cross-sections</b>                                                                         |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for control circuit solid</li> </ul>                                               | 1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )                                                    |
| <ul style="list-style-type: none"> <li>• for control circuit finely stranded with core end processing</li> </ul>            | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )                                                    |
| <ul style="list-style-type: none"> <li>• for AWG cables for control circuit solid</li> </ul>                                | 1x (20 ... 12), 2x (20 ... 14)                                                                                          |
| <b>wire length</b>                                                                                                          |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• between soft starter and motor maximum</li> </ul>                                  | 800 m                                                                                                                   |
| <ul style="list-style-type: none"> <li>• at the digital inputs at AC maximum</li> </ul>                                     | 100 m                                                                                                                   |
| <b>tightening torque</b>                                                                                                    |                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>                             | 4.5 ... 6 N·m                                                                                                           |
| <ul style="list-style-type: none"> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>            | 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> </ul>                             | 40 ... 53 lbf·in                                                                                                        |
| <ul style="list-style-type: none"> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>            | 7 ... 10.3 lbf·in                                                                                                       |
| <b>Ambient conditions</b>                                                                                                   |                                                                                                                         |
| installation altitude at height above sea level maximum                                                                     | 5 000 m                                                                                                                 |
| <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>Electromagnetic compatibility</b>                                                                                        |                                                                                                                         |
| <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                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • PROFIBUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                          |
| UL/CSA ratings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| manufacturer's article number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>• of circuit breaker usable for Standard Faults<ul style="list-style-type: none"><li>— at 460/480 V according to UL</li><li>— 60/480 V according to UL</li><li>— at 460/480 V at inside-delta circuit according to UL</li><li>— 60/480 V at inside-delta circuit according to UL</li><li>— at 575/600 V according to UL</li><li>— at 575/600 V at inside-delta circuit according to UL</li></ul></li><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><li>— usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL</li><li>— usable for High Faults at inside-delta circuit up to 575/600 V according to UL</li></ul></li></ul> |  | <p>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</p> <p>Siemens type: 3VA51, max. 125 A; Iq max = 65 kA</p> <p>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</p> <p>Siemens type: 3VA51, max. 125 A; Iq max = 65 kA</p> <p>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</p> <p>Siemens type: 3VA51, max. 125 A; Iq = 10 kA</p> <p>Type: Class RK5 / K5, max. 300 A; Iq = 10 kA</p> <p>Type: Class J / L, max. 250 A; Iq = 100 kA</p> <p>Type: Class RK5 / K5, max. 300 A; Iq = 10 kA</p> <p>Type: Class J / L, max. 250 A; Iq = 100 kA</p> |                                                                                                                                                                          |
| operating power [hp] for 3-phase motors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| <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><li>• at 575/600 V at 50 °C rated value</li><li>• at 200/208 V at inside-delta circuit at 50 °C rated value</li><li>• at 220/230 V at inside-delta circuit at 50 °C rated value</li><li>• at 460/480 V at inside-delta circuit at 50 °C rated value</li><li>• at 575/600 V at inside-delta circuit at 50 °C rated value</li></ul>                                                                                                                                                                                                                                                                                                                                   |  | <p>25 hp</p> <p>30 hp</p> <p>60 hp</p> <p>75 hp</p> <p>40 hp</p> <p>50 hp</p> <p>100 hp</p> <p>125 hp</p>                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                          |
| contact rating of auxiliary contacts according to UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | R300-B300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                          |
| Electrical Safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| protection class IP on the front according to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | IP00; IP20 with cover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                          |
| touch protection on the front according to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | finger-safe, for vertical contact from the front with cover                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                          |
| Approvals Certificates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| Environmental Product Declaration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>• global warming potential [CO2 eq] / during manufacturing</li><li>• global warming potential [CO2 eq] / during sales</li><li>• global warming potential [CO2 eq] / during operation</li><li>• global warming potential [CO2 eq] / after end of life</li><li>• global warming potential [CO2 eq] / total</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <p>67.7 kg</p> <p>1.84 kg</p> <p>242 kg</p> <p>-15.7 kg</p> <p>296 kg</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                          |
| Environment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | General Product Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                          |
| <div><div><a href="#">Environmental Conformations</a></div><div></div><div></div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |
| General Product Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | EMV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Test Certificates                                                                                                                                                        |
| <div><div></div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <div><div><a href="#">Type Test Certificates/Test Report</a></div><div></div></div> |
| Maritime application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                          |
| <div><div></div><div></div><div></div><div></div><div><a href="#">Confirmation</a></div><div></div></div>                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                          |

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

### 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=3RW5227-1TC15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5227-1TC15>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5227-1TC15&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5227-1TC15&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5227-1TC15>

### Kennlinien

<https://curves.simaris.siemens.com/curves/3RW5227-1TC15>

### Characteristic: Tripping characteristics, $I^2t$ , Let-through current

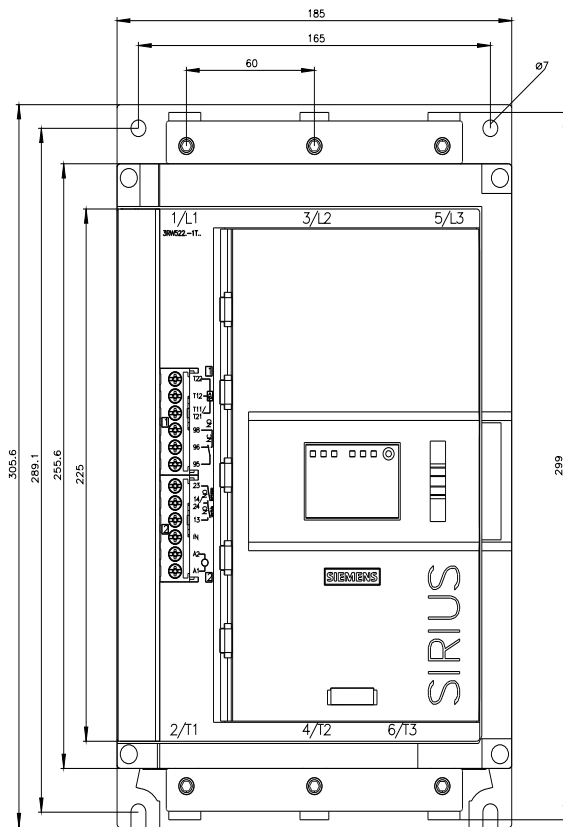
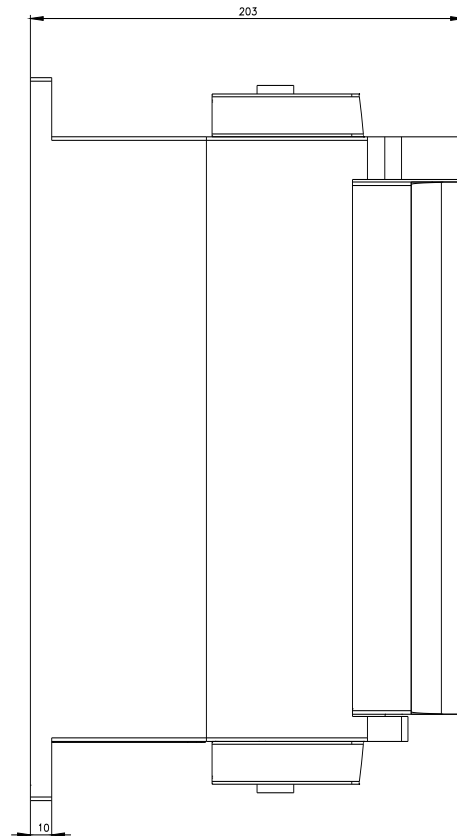
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5227-1TC15/char>

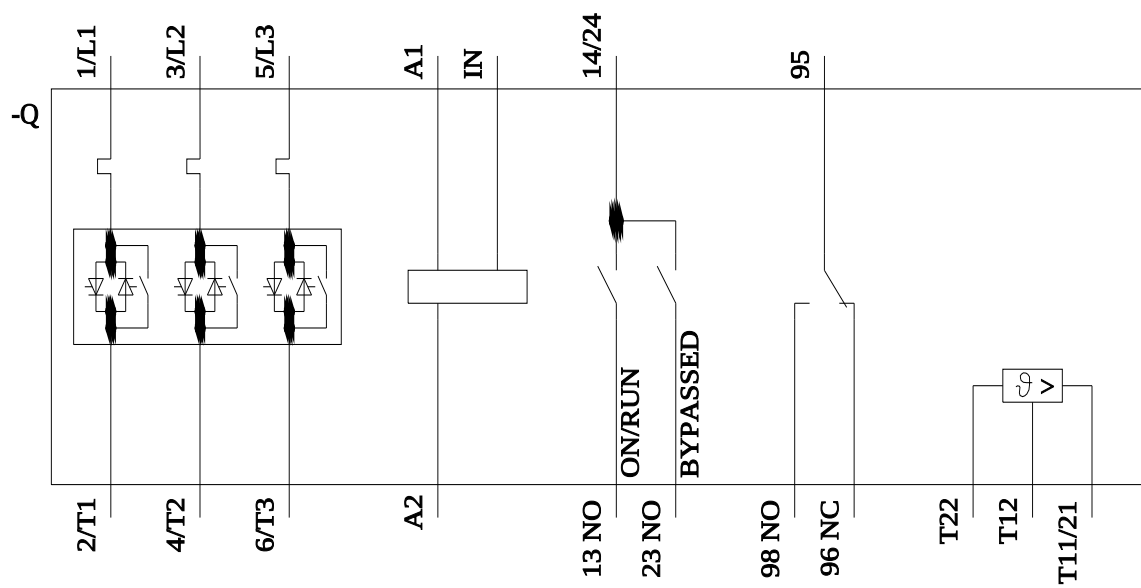
### Characteristic: Installation altitude

[https://www.automation.siemens.com/bilddb/index.aspx?gridview=view2&objkey=G\\_NSB0\\_XX\\_01704&showdetail=true&view=Search](https://www.automation.siemens.com/bilddb/index.aspx?gridview=view2&objkey=G_NSB0_XX_01704&showdetail=true&view=Search)

### Simulation Tool for Soft Starters (STS)

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





last modified:

9/2/2026 

