



SIRIUS soft starter 200-480 V 47 A, 24 V AC/DC Screw terminals Fail-safe

|   |  |
|---|--|
| <b>product brand name</b>                 | SIRIUS   |
| <b>product category</b>                   | Hybrid switching devices   |
| <b>product designation</b>                | Failsafe soft starters   |
| <b>product type designation</b>           | 3RW55  |
| <b>manufacturer's article number</b>      | <ul style="list-style-type: none"> <li>• of high feature HMI module usable <a href="#">3RW5980-0HF00</a></li> <li>• of communication module PROFINET standard usable <a href="#">3RW5980-0CS00</a></li> <li>• of communication module PROFINET high-feature usable <a href="#">3RW5950-0CH00</a></li> <li>• of communication module PROFIBUS usable <a href="#">3RW5980-0CP00</a></li> <li>• of communication module Modbus TCP usable <a href="#">3RW5980-0CT00</a></li> <li>• of communication module Modbus RTU usable <a href="#">3RW5980-0CR00</a></li> <li>• of communication module Ethernet/IP <a href="#">3RW5980-0CE00</a></li> <li>• of circuit breaker usable at 400 V <a href="#">3RV2032-4JA10; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V <a href="#">3RV2032-4JA10; Type of coordination 1, Iq = 10 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 400 V at inside-delta circuit <a href="#">3RV2032-4RA10; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V at inside-delta circuit <a href="#">3RV2032-4RA10; Type of coordination 1, Iq = 10 kA, CLASS 10</a></li> <li>• of the gG fuse usable up to 690 V <a href="#">3NA3824-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of the gG fuse usable at inside-delta circuit up to 500 V <a href="#">3NA3824-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of full range R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE1021-2; Type of coordination 2, Iq = 65 kA</a></li> <li>• of back-up R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE8024-1; Type of coordination 2, Iq = 65 kA</a></li> <li>• of the redundant contactor for applications &gt; SIL 1 according to EN 62061 <a href="#">3RT2038</a></li> <li>• of the redundant contactor for applications &gt; SIL 1 at inside-delta circuit according to EN 62061 <a href="#">3RT2038</a></li> <li>• of the redundant contactor for applications &gt; SIL 1 according to EN ISO 13849-1 <a href="#">3RT2046</a></li> <li>• of the redundant contactor for applications &gt; SIL 1 at inside-delta circuit according to EN ISO 13849-1 <a href="#">3RT2046</a></li> </ul> |
| <b>General technical data</b>             |  |
| <b>starting voltage [%]</b>               | 20 ... 100 %   |
| <b>stopping voltage [%]</b>               | 50 %; non-adjustable   |
| <b>start-up ramp time of soft starter</b> | 0 ... 360 s  |
| <b>ramp-down time of soft starter</b>     | 0 ... 360 s  |
| <b>start torque [%]</b>                   | 10 ... 100 %   |
| <b>stopping torque [%]</b>                | 10 ... 100 %   |
| <b>torque limitation [%]</b>              | 20 ... 200 %   |

|  |  |
|--|--|
| <b>current limiting value [%] adjustable</b>                 | 125 ... 800 %  |
| <b>breakaway voltage [%] adjustable</b>                      | 40 ... 100 %   |
| <b>breakaway time adjustable</b>                             | 0 ... 2 s  |
| <b>number of parameter sets</b>                              | 3  |
| <b>accuracy class</b>  | 5 (based on IEC 61557-12)  |
| <b>certificate of suitability</b>                            |  |
| • CE marking   | Yes  |
| • UL approval  | Yes  |
| • CSA approval   | Yes  |
| <b>product component</b>                                     |  |
| • HMI-High Feature   | Yes  |
| • is supported HMI-High Feature                              | Yes  |
| <b>product feature integrated bypass contact system</b>      | Yes  |
| <b>number of controlled phases</b>                           | 3  |
| <b>current unbalance limiting value [%]</b>                  | 10 ... 60 %  |
| <b>ground-fault monitoring limiting value [%]</b>            | 10 ... 95 %  |
| <b>buffering time in the event of power failure</b>          |  |
| • for main current circuit                                   | 100 ms   |
| • for control circuit  | 100 ms   |
| <b>idle time adjustable</b>                                  | 0 ... 255 s  |
| <b>insulation voltage rated value</b>                        | 480 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>             | 1 400 V  |
| <b>service factor</b>  | 1.15   |
| <b>surge voltage resistance rated value</b>                  | 6 kV   |
| <b>maximum permissible voltage for protective separation</b> |  |
| • between main and auxiliary circuit                         | 480 V; does not apply for thermistor connection  |
| <b>shock resistance</b>                                      | 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting  |
| <b>vibration resistance</b>                                  | 15 mm up to 6 Hz; 2 g up to 500 Hz   |
| <b>recovery time after overload trip adjustable</b>          | 60 ... 1 800 s   |
| 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>               | 11/22/2019   |
| <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>Lead titanium trioxide CAS-No. 12060-00-3 |
| <b>Net Weight</b>  | 6.578 kg   |
| <b>product function</b>                                      |  |
| • ramp-up (soft starting)                                    | Yes  |
| • soft stopping  | Yes  |
| • breakaway pulse  | Yes  |
| • adjustable current limitation                              | Yes  |
| • creep speed in both directions of rotation                 | Yes  |
| • pump stop  | Yes  |
| • DC braking   | Yes  |
| • motor heating  | Yes  |
| • min/max pointer  | Yes  |
| • trace function   | Yes  |
| • intrinsic device protection                                | Yes  |
| • motor overload protection                                  | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit.   |
| • evaluation of thermistor motor protection                  | Yes; Type A PTC or Klixon / Thermoclick  |
| • inside-delta circuit                                       | Yes  |
| • auto-RESET   | Yes  |
| • manual RESET   | Yes  |

|   |   |
|---|---|
| • remote reset                                  | Yes   |
| • communication function                        | Yes   |
| • operating measured value display              | Yes   |
| • event list                                    | Yes   |
| • error logbook                                 | Yes   |
| • via software parameterizable                  | Yes   |
| • via software configurable                     | Yes   |
| • screw terminal                                | Yes   |
| • spring-loaded terminal                        | No  |
| • <b>PROFInergy</b>                             | Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules |
| • <b>firmware update</b>                        | Yes   |
| • <b>removable terminal for control circuit</b> | Yes   |
| • voltage ramp                                  | Yes   |
| • torque control                                | Yes   |
| • combined braking                              | Yes   |
| • analog output                                 | Yes; 4 ... 20 mA (default) / 0 ... 10 V   |
| • programmable control inputs/outputs           | Yes   |
| • condition monitoring                          | Yes   |
| • automatic parameterisation                    | Yes   |
| • application wizards                           | Yes   |
| • alternative stopping mode                     | Yes   |
| • emergency operation mode                      | Yes   |
| • reversing operation                           | Yes   |
| • soft starting at heavy starting conditions    | Yes   |

#### Power Electronics

|   |                          |
|---|--------------------------|
| <b>operational current</b>  |                          |
| • at 40 °C rated value  | 47 A                     |
| • at 40 °C rated value minimum  | 10 A                     |
| • at 50 °C rated value  | 41.6 A                   |
| • at 60 °C rated value  | 36.2 A                   |
| <b>operational current at inside-delta circuit</b>                                  |                          |
| • at 40 °C rated value  | 81.4 A                   |
| • at 50 °C rated value  | 72 A                     |
| • at 60 °C rated value  | 62.7 A                   |
| <b>operating voltage</b>  |                          |
| • rated value   | 200 ... 480 V            |
| • at inside-delta circuit rated value   | 200 ... 480 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   | 11 kW                    |
| • at 230 V at inside-delta circuit at 40 °C rated value                             | 22 kW                    |
| • at 400 V at 40 °C rated value   | 22 kW                    |
| • at 400 V at inside-delta circuit at 40 °C rated value                             | 45 kW                    |
| <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>minimum load [%]</b>   | 10 %; Relative to set le |
| <b>power loss [W] for rated value of the current at AC</b>                          |                          |
| • at 40 °C after startup  | 14 W                     |
| • at 50 °C after startup  | 12 W                     |
| • at 60 °C after startup  | 11 W                     |
| <b>power loss [W] at AC at current limitation 350 %</b>                             |                          |
| • at 40 °C during startup   | 588 W                    |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> </ul>   | 504 W<br>420 W   |
| <b>type of the motor protection</b>  | Electronic, tripping in the event of thermal overload of the motor   |
| <b>Control circuit/ Control</b>  |  |
| <b>type of voltage of the control supply voltage</b>   | AC/DC  |
| <b>control supply voltage at AC</b>  |  |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>   | 24 V<br>24 V   |
| <b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>  | -20 %  |
| <b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>  | 20 %   |
| <b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>  | -20 %  |
| <b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>  | 20 %   |
| <b>control supply voltage frequency</b>  | 50 ... 60 Hz   |
| <b>relative negative tolerance of the control supply voltage frequency</b>   | -10 %  |
| <b>relative positive tolerance of the control supply voltage frequency</b>   | 10 %   |
| <b>control supply voltage at DC rated value</b>  | 24 V   |
| <b>relative negative tolerance of the control supply voltage at DC</b>   | -20 %  |
| <b>relative positive tolerance of the control supply voltage at DC</b>   | 20 %   |
| <b>control supply current in standby mode rated value</b>  | 440 mA   |
| <b>holding current in bypass operation rated value</b>   | 870 mA   |
| <b>inrush current by closing the bypass contacts maximum</b>   | 6.3 A  |
| inrush current peak at application of control supply voltage maximum   | 7.5 A  |
| duration of inrush current peak at application of control supply voltage   | 20 ms  |
| <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>  | 4  |
| <ul style="list-style-type: none"> <li>with fail-safe</li> <li>parameterizable</li> </ul>  | 1<br>4   |
| <ul style="list-style-type: none"> <li><b>number of digital outputs</b></li> <li>Number of digital outputs with fail-safe</li> <li>number of digital outputs parameterizable</li> <li>number of digital outputs not parameterizable</li> </ul> | 3<br>1<br>2<br>1   |
| <b>digital output version</b>  | 2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1 changeover contact (CO)   |
| <b>number of analog outputs</b>  | 1  |
| <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>Response times</b>  |  |
| OFF-delay time with safety-related request when switched off via control inputs maximum  | 100 ms   |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>mounting position</b>   | Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)   |
| <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> </ul>   | 10 mm  |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• backwards</li> <li>• upwards</li> <li>• downwards</li> <li>• at the side</li> </ul>  | <p>0 mm</p> <p>100 mm</p> <p>75 mm</p> <p>5 mm</p>  |
| <b>weight without packaging</b>   | 5.5 kg  |
| <b>Connections/ Terminals</b>   |   |
| <b>type of electrical connection</b>  |   |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for control circuit</li> </ul>   | <p>box terminal</p> <p>screw-type terminals</p>   |
| <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> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>   | <p>50 m</p> <p>150 m</p> <p>250 m</p>   |
| <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> <li>• using the front clamping point finely stranded with core end processing</li> <li>• using the front clamping point stranded</li> <li>• using the back clamping point solid</li> <li>• r box terminal using the back clamping point</li> <li>• using both clamping points solid</li> <li>• using both clamping points finely stranded with core end processing</li> <li>• using both clamping points stranded</li> <li>• using the back clamping point finely stranded with core end processing</li> <li>• using the back clamping point stranded</li> </ul> | <p>1x (2.5 ... 16 mm<sup>2</sup>)</p> <p>1x (2.5 ... 50 mm<sup>2</sup>)</p> <p>1x (10 ... 70 mm<sup>2</sup>)</p> <p>1x (2.5 ... 16 mm<sup>2</sup>)</p> <p>1x (10 ... 2/0)</p> <p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (6 ... 16 mm<sup>2</sup>), 2x (10 ... 50 mm<sup>2</sup>)</p> <p>1x (2.5 ... 50 mm<sup>2</sup>)</p> <p>1x (10 ... 70 mm<sup>2</sup>)</p> |
| <b>type of connectable conductor cross-sections</b>   |   |
| <ul style="list-style-type: none"> <li>• for control circuit solid</li> <li>• for control circuit finely stranded with core end processing</li> <li>• for AWG cables for control circuit solid</li> </ul>   | <p>1x (0.5 ... 4.0 mm<sup>2</sup>), 2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (0.5 ... 2.5 mm<sup>2</sup>), 2x (0.5 ... 1.5 mm<sup>2</sup>)</p> <p>1x (20 ... 12), 2x (20 ... 14)</p>   |
| <b>wire length</b>  |   |
| <ul style="list-style-type: none"> <li>• between soft starter and motor maximum</li> <li>• at the digital inputs at DC maximum</li> </ul>   | <p>800 m</p> <p>1 000 m</p>   |
| <b>tightening torque</b>  |   |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>   | <p>4.5 ... 6 N·m</p> <p>0.8 ... 1.2 N·m</p>   |
| <b>tightening torque [lbf·in]</b>   |   |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>   | <p>40 ... 53 lbf·in</p> <p>7 ... 10.3 lbf·in</p>  |
| <b>Ambient conditions</b>   |   |
| installation altitude at height above sea level maximum   | 2 000 m   |
| <b>ambient temperature</b>  |   |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage and transport</li> </ul>  | <p>-25 ... +60 °C; Please observe derating at temperatures of 40 °C or above</p> <p>-40 ... +80 °C</p>  |
| <b>environmental category</b>   |   |
| <ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during transport according to IEC 60721</li> </ul>   | <p>3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p>  |
| <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> <li>• PROFINET high-feature</li> </ul>  | <p>Yes</p> <p>Yes</p>   |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• EtherNet/IP</li> <li>• Modbus RTU</li> <li>• Modbus TCP</li> <li>• PROFIBUS</li> </ul>  | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>   |
| <b>UL/CSA ratings</b>  |   |
| <b>manufacturer's article number</b>   |   |
| <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>— 75/600 V at inside-delta circuit 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: 3RV2742, max. 70 A or 3VA51, max. 90 A; Iq = 5 kA</p> <p>Siemens type: 3VA51, max. 60 A; Iq max = 65 kA</p> <p>Siemens type: 3VA51, max. 90 A; Iq = 5 kA</p> <p>Siemens type: 3VA51, max. 60 A; Iq max = 65 kA</p> <p>Siemens type: 3RV2742, max. 70 A or 3VA51, max. 90 A; Iq = 5 kA</p> <p>Siemens type: 3VA51, max. 60 A; Iq max = 65 kA</p> <p>Siemens type: 3VA51, max. 90 A; Iq = 5 kA</p> <p>Type: Class RK5 / K5, max. 175 A; Iq = 5 kA</p> <p>Type: Class J / L, max. 175 A; Iq = 100 kA</p> <p>Type: Class RK5 / K5, max. 175 A; Iq = 5 kA</p> <p>Type: Class J / L, max. 175 A; Iq = 100 kA</p> |
| <b>operating power [hp] for 3-phase motors</b>   |   |
| <ul style="list-style-type: none"> <li>• at 200/208 V at 50 °C rated value</li> <li>• at 220/230 V at 50 °C rated value</li> <li>• at 460/480 V at 50 °C rated value</li> <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> </ul>   | <p>10 hp</p> <p>10 hp</p> <p>30 hp</p> <p>20 hp</p> <p>25 hp</p> <p>50 hp</p>   |
| <b>contact rating of auxiliary contacts according to UL</b>  | R300-B300   |
| <b>Safety related data</b>   |   |
| product function suitable for safety function  | Yes   |
| <b>suitability for use</b>   |   |
| <ul style="list-style-type: none"> <li>• safety-related switching on</li> <li>• safety-related switching OFF</li> </ul>  | <p>No</p> <p>Yes</p>  |
| <b>safe state</b>  | Open load circuit   |
| <b>function test interval maximum</b>  | 1 a   |
| <b>diagnostics test interval by internal test function maximum</b>   | 1 000 s   |
| <b>stop category according to IEC 60204-1</b>  | 0   |
| <b>B10d value</b>  | 1 000 000   |
| <b>average diagnostic coverage level (DCavg)</b>   | 90 %  |
| <b>MTTFd</b>   | 39 a  |
| <b>IEC 62061</b>   |   |
| <b>Safety Integrity Level (SIL) according to IEC 62061</b>   | SIL 1   |
| PFHD with high demand rate according to IEC 62061  | 1E-6 1/h  |
| <b>ISO 13849</b>   |   |
| <b>performance level (PL) according to ISO 13849-1</b>   | PL c  |
| <b>category according to ISO 13849-1</b>   | 2   |
| <b>IEC 61508</b>   |   |
| <b>Safety Integrity Level (SIL)</b>  |   |
| <ul style="list-style-type: none"> <li>• according to IEC 61508</li> </ul>   | SIL 1   |
| <b>safety device type according to IEC 61508-2</b>   | Type B  |
| <b>PFHD with high demand rate according to IEC 61508</b>   | 1E-6 1/h  |
| PFDAvg with low demand rate according to IEC 61508   | 0.09  |
| <b>Safe failure fraction (SFF)</b>   | 60 %  |
| hardware fault tolerance according to IEC 61508  | 0   |
| T1 value of service life according to IEC 61508  | 20 a  |
| <b>Electrical Safety</b>   |   |
| <b>protection class IP on the front according to IEC 60529</b>   | IP00; IP20 with cover   |

|  |  |
|--|--|
| touch protection on the front according to IEC 60529   | finger-safe, for vertical contact from the front with cover                                  |
| <b>ATEX</b>  |  |
| Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX   | SIL 1  |
| PFHD with high demand rate according to IEC 61508 relating to ATEX   | 5E-7 1/h   |
| PFDavg with low demand rate according to IEC 61508 relating to ATEX  | 0.008  |
| hardware fault tolerance according to IEC 61508 relating to ATEX   | 0  |
| T1 value for proof test interval or service life according to IEC 61508 relating to ATEX   | 3 a  |
| certificate of suitability <ul style="list-style-type: none"> <li>• ATEX</li> <li>• IECEx</li> <li>• according to ATEX directive 2014/34/EU</li> </ul> | Yes<br>Yes<br>BVS 18 ATEX F 003 X  |
| type of protection according to ATEX directive 2014/34/EU  | II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], I (M2) [Ex db Mb] |

**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> | 92.599 kg<br>2.37 kg<br>324 kg<br>-19.4 kg<br>399 kg |
| <b>Environment</b>   | <b>General Product Approval</b>                      |

[Environmental Confirmations](#)



**General Product Approval**      **EMV**      **For use in hazardous locations**



**Functional Safety**      **Test Certificates**      **Maritime application**

[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)



**Maritime application**      **other**



**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=3RW5524-1HF04>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5524-1HF04>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5524-1HF04&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5524-1HF04&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5524-1HF04>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

Characteristic: Tripping characteristics, I<sup>t</sup>, Let-through current

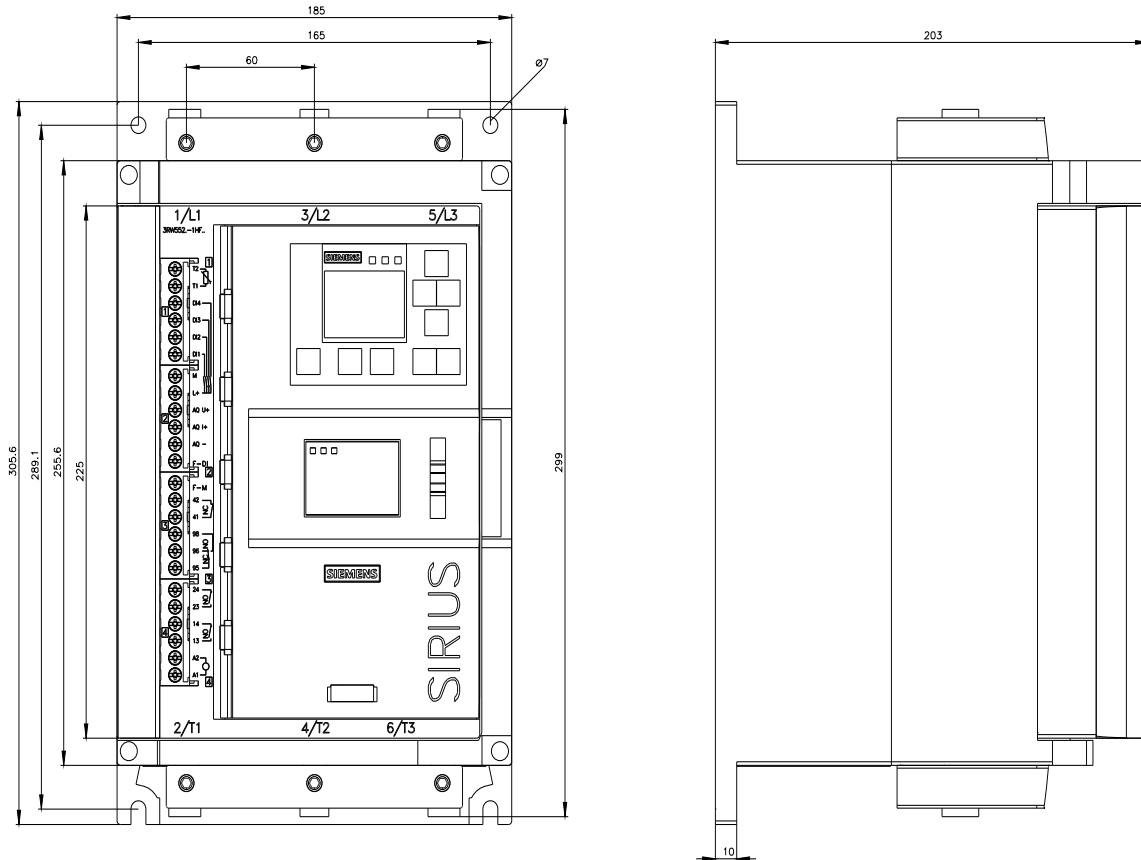
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5524-1HF04/char>

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:

9/5/2025

