



SIRIUS soft starter 200-690 V 143 A, 24 V AC/DC spring-type terminals

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| <b>product brand name</b>                               | SIRIUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>product category</b>                                 | Hybrid switching devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>product designation</b>                              | Soft starter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <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="#">3VA2220-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 400 V at inside-delta circuit <a href="#">3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of the gG fuse usable up to 690 V <a href="#">3NA3244-6; 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="#">3NA3244-6; 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="#">3NE1227-0; 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="#">3NE3233; Type of coordination 2, Iq = 65 kA</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>                       | <ul style="list-style-type: none"> <li>• CE marking Yes</li> <li>• UL approval Yes</li> <li>• CSA approval Yes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>product component</b>                                | <ul style="list-style-type: none"> <li>• HMI-High Feature Yes</li> <li>• is supported HMI-High Feature Yes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <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>     | <ul style="list-style-type: none"> <li>• for main current circuit 100 ms</li> <li>• for control circuit 100 ms</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>idle time adjustable</b>                             | 0 ... 255 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>insulation voltage rated value</b>                                                                | 690 V                                                                                                                                                                                                                                                                                                             |
| <b>degree of pollution</b>                                                                           | 3, acc. to IEC 60947-4-2                                                                                                                                                                                                                                                                                          |
| <b>impulse voltage rated value</b>                                                                   | 8 kV                                                                                                                                                                                                                                                                                                              |
| <b>blocking voltage of the thyristor maximum</b>                                                     | 1 800 V                                                                                                                                                                                                                                                                                                           |
| <b>service factor</b>                                                                                | 1.15                                                                                                                                                                                                                                                                                                              |
| <b>surge voltage resistance rated value</b>                                                          | 8 kV                                                                                                                                                                                                                                                                                                              |
| <b>maximum permissible voltage for protective separation</b><br>• between main and auxiliary circuit | 690 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>                                                       | 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 |
| <b>Net Weight</b>                                                                                    | 8.027 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)                                                                                                                                                                                                                 |
| • evaluation of thermistor motor protection                                                          | Yes; Type A PTC or Klaxon / Thermoclick                                                                                                                                                                                                                                                                           |
| • inside-delta circuit                                                                               | Yes; Only up to 600 V operating voltage                                                                                                                                                                                                                                                                           |
| • 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                                                                                     | No                                                                                                                                                                                                                                                                                                                |
| • spring-loaded terminal                                                                             | Yes                                                                                                                                                                                                                                                                                                               |
| • <b>PROFINET</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                                                                                                                                                                                                                                                                                                               |

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| • alternative stopping mode                                                         | Yes                                                                |
| • emergency operation mode                                                          | Yes                                                                |
| • reversing operation                                                               | Yes                                                                |
| • soft starting at heavy starting conditions                                        | Yes                                                                |
| <b>Power Electronics</b>                                                            |                                                                    |
| <b>operational current</b>                                                          |                                                                    |
| • at 40 °C rated value                                                              | 143 A                                                              |
| • at 40 °C rated value minimum                                                      | 29 A                                                               |
| • at 50 °C rated value                                                              | 128 A                                                              |
| • at 60 °C rated value                                                              | 118 A                                                              |
| <b>operational current at inside-delta circuit</b>                                  |                                                                    |
| • at 40 °C rated value                                                              | 248 A                                                              |
| • at 50 °C rated value                                                              | 222 A                                                              |
| • at 60 °C rated value                                                              | 204 A                                                              |
| <b>operating voltage</b>                                                            |                                                                    |
| • rated value                                                                       | 200 ... 690 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                                                     | 37 kW                                                              |
| • at 230 V at inside-delta circuit at 40 °C rated value                             | 75 kW                                                              |
| • at 400 V at 40 °C rated value                                                     | 75 kW                                                              |
| • at 400 V at inside-delta circuit at 40 °C rated value                             | 132 kW                                                             |
| • at 500 V at 40 °C rated value                                                     | 90 kW                                                              |
| • at 500 V at inside-delta circuit at 40 °C rated value                             | 160 kW                                                             |
| • at 690 V at 40 °C rated value                                                     | 132 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                                                            | 43 W                                                               |
| • at 50 °C after startup                                                            | 38 W                                                               |
| • at 60 °C after startup                                                            | 35 W                                                               |
| <b>power loss [W] at AC at current limitation 350%</b>                              |                                                                    |
| • at 40 °C during startup                                                           | 2 115 W                                                            |
| • at 50 °C during startup                                                           | 1 795 W                                                            |
| • at 60 °C during startup                                                           | 1 593 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>                                                 |                                                                    |
| • at 50 Hz rated value                                                              | 24 V                                                               |
| • at 60 Hz rated value                                                              | 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 %                                                              |

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| <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 (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply |
| <b>Inputs/ Outputs</b>                                                        |                                                                                                                                                                                |
| <b>number of digital inputs</b>                                               | 4                                                                                                                                                                              |
| • parameterizable                                                             | 4                                                                                                                                                                              |
| • <b>number of digital outputs</b>                                            | 4                                                                                                                                                                              |
| • number of digital outputs parameterizable                                   | 3                                                                                                                                                                              |
| • number of digital outputs not parameterizable                               | 1                                                                                                                                                                              |
| <b>digital output version</b>                                                 | 3 normally-open contacts (NO) / 1 changeover contact (CO)                                                                                                                      |
| <b>number of analog outputs</b>                                               | 1                                                                                                                                                                              |
| <b>switching capacity current of the relay outputs</b>                        |                                                                                                                                                                                |
| • at AC-15 at 250 V rated value                                               | 3 A                                                                                                                                                                            |
| • at DC-13 at 24 V rated value                                                | 1 A                                                                                                                                                                            |
| <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                                   |                                                                                                                                                                                |
| • forwards                                                                    | 10 mm                                                                                                                                                                          |
| • backwards                                                                   | 0 mm                                                                                                                                                                           |
| • upwards                                                                     | 100 mm                                                                                                                                                                         |
| • downwards                                                                   | 75 mm                                                                                                                                                                          |
| • at the side                                                                 | 5 mm                                                                                                                                                                           |
| <b>weight without packaging</b>                                               | 8.5 kg                                                                                                                                                                         |
| <b>Connections/ Terminals</b>                                                 |                                                                                                                                                                                |
| <b>type of electrical connection</b>                                          |                                                                                                                                                                                |
| • for main current circuit                                                    | busbar connection                                                                                                                                                              |
| • for control circuit                                                         | spring-loaded terminals                                                                                                                                                        |
| <b>width of connection bar maximum</b>                                        | 25 mm                                                                                                                                                                          |
| <b>wire length for thermistor connection</b>                                  |                                                                                                                                                                                |
| • with conductor cross-section = 0.5 mm² maximum                              | 50 m                                                                                                                                                                           |
| • with conductor cross-section = 1.5 mm² maximum                              | 150 m                                                                                                                                                                          |
| • with conductor cross-section = 2.5 mm² maximum                              | 250 m                                                                                                                                                                          |
| <b>type of connectable conductor cross-sections</b>                           |                                                                                                                                                                                |
| • for DIN cable lug for main contacts stranded                                | 2x (16 ... 95 mm²)                                                                                                                                                             |
| • for DIN cable lug for main contacts finely stranded                         | 2x (25 ... 120 mm²)                                                                                                                                                            |
| <b>type of connectable conductor cross-sections</b>                           |                                                                                                                                                                                |
| • for control circuit solid                                                   | 2x (0.25 ... 1.5 mm²)                                                                                                                                                          |
| • for control circuit finely stranded with core end processing                | 2x (0.25 ... 1.5 mm²)                                                                                                                                                          |
| • for AWG cables for control circuit solid                                    | 2x (24 ... 16)                                                                                                                                                                 |
| • for AWG cables for control circuit finely stranded with core end processing | 2x (24 ... 16)                                                                                                                                                                 |

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| <b>wire length</b>                                                                   |                                                                                                                         |
| • between soft starter and motor maximum                                             | 800 m                                                                                                                   |
| • at the digital inputs at DC maximum                                                | 1 000 m                                                                                                                 |
| <b>tightening torque</b>                                                             |                                                                                                                         |
| • for main contacts with screw-type terminals                                        | 10 ... 14 N·m                                                                                                           |
| • for auxiliary and control contacts with screw-type terminals                       | 0.8 ... 1.2 N·m                                                                                                         |
| <b>tightening torque [lbf·in]</b>                                                    |                                                                                                                         |
| • for main contacts with screw-type terminals                                        | 89 ... 124 lbf·in                                                                                                       |
| • for auxiliary and control contacts with screw-type terminals                       | 7 ... 10.3 lbf·in                                                                                                       |
| <b>Ambient conditions</b>                                                            |                                                                                                                         |
| installation altitude at height above sea level maximum                              | 2 000 m                                                                                                                 |
| <b>ambient temperature</b>                                                           |                                                                                                                         |
| • during operation                                                                   | -25 ... +60 °C; Please observe derating at temperatures of 40 °C or above                                               |
| • during storage and transport                                                       | -40 ... +80 °C                                                                                                          |
| <b>environmental category</b>                                                        |                                                                                                                         |
| • during operation according to IEC 60721                                            | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| • during storage according to IEC 60721                                              | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4                 |
| • during transport according to IEC 60721                                            | 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>                                             |                                                                                                                         |
| • PROFINET standard                                                                  | Yes                                                                                                                     |
| • PROFINET high-feature                                                              | Yes                                                                                                                     |
| • EtherNet/IP                                                                        | Yes                                                                                                                     |
| • Modbus RTU                                                                         | Yes                                                                                                                     |
| • Modbus TCP                                                                         | Yes                                                                                                                     |
| • PROFIBUS                                                                           | Yes                                                                                                                     |
| <b>UL/CSA ratings</b>                                                                |                                                                                                                         |
| <b>manufacturer's article number</b>                                                 |                                                                                                                         |
| • <b>of circuit breaker usable for Standard Faults</b>                               |                                                                                                                         |
| — at 460/480 V according to UL                                                       | Siemens type: 3VA52, max. 250 A; Iq = 10 kA                                                                             |
| — 60/480 V according to UL                                                           | Siemens type: 3VA52, max. 250 A; Iq max = 65 kA                                                                         |
| — at 460/480 V at inside-delta circuit according to UL                               | Siemens type: 3VA52, max. 250 A; Iq = 10 kA                                                                             |
| — 60/480 V at inside-delta circuit according to UL                                   | Siemens type: 3VA52, max. 250 A; Iq max = 65 kA                                                                         |
| — at 575/600 V according to UL                                                       | Siemens type: 3VA52, max. 250 A; Iq = 10 kA                                                                             |
| — 75/600 V at inside-delta circuit according to UL                                   | Siemens type: 3VA52, max. 250 A; Iq max = 65 kA                                                                         |
| — at 575/600 V at inside-delta circuit according to UL                               | Siemens type: 3VA52, max. 250 A; Iq = 10 kA                                                                             |
| • <b>of the fuse</b>                                                                 |                                                                                                                         |
| — usable for Standard Faults up to 575/600 V according to UL                         | Type: Class RK5 / K5, max. 350 A; Iq = 10 kA                                                                            |
| — usable for High Faults up to 575/600 V according to UL                             | Type: Class J / L, max. 350 A; Iq = 100 kA                                                                              |
| — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL | Type: Class RK5 / K5, max. 350 A; Iq = 10 kA                                                                            |
| — usable for High Faults at inside-delta circuit up to 575/600 V according to UL     | Type: Class J / L, max. 350 A; Iq = 100 kA                                                                              |
| <b>operating power [hp] for 3-phase motors</b>                                       |                                                                                                                         |
| • at 200/208 V at 50 °C rated value                                                  | 40 hp                                                                                                                   |
| • at 220/230 V at 50 °C rated value                                                  | 40 hp                                                                                                                   |
| • at 460/480 V at 50 °C rated value                                                  | 100 hp                                                                                                                  |
| • at 575/600 V at 50 °C rated value                                                  | 125 hp                                                                                                                  |
| • at 200/208 V at inside-delta circuit at 50 °C rated value                          | 75 hp                                                                                                                   |
| • at 220/230 V at inside-delta circuit at 50 °C rated value                          | 75 hp                                                                                                                   |
| • at 460/480 V at inside-delta circuit at 50 °C rated value                          | 150 hp                                                                                                                  |
| • at 575/600 V at inside-delta circuit at 50 °C rated value                          | 200 hp                                                                                                                  |
| <b>contact rating of auxiliary contacts according to UL</b>                          | 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                                  |
| <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> | 92.6 kg<br>2.37 kg<br>324 kg<br>-19.4 kg<br>399 kg |
| Environment                                                                                                                                                                                                                                                                                                                                                    | General Product Approval                           |

[Environmental Confirmations](#)



|                                                                                                 |                                                                                     |                                                                                     |                                                                                            |                                                                                               |                                                                                                |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| General Product Approval                                                                        | EMV                                                                                 | For use in hazardous locations                                                      |                                                                                            |                                                                                               |                                                                                                |
| <br>EG-Konf. |  |  | <br>RCM | <br>ATEX | <br>IECEX |

| Test Certificates                                  | Maritime application                                                                       |                                                                                                       |                                                                                            |                                                                                              |                                                                                              |
|----------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <a href="#">Type Test Certificates/Test Report</a> | <br>ABS | <br>BUREAU VERITAS | <br>DNV | <br>LRS | <br>PRS |

|                              |
|------------------------------|
| other                        |
| <a href="#">Confirmation</a> |

#### 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=3RW5535-2HA06>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5535-2HA06>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5535-2HA06&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5535-2HA06&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5535-2HA06>

Kennlinien

<https://curves.simaris.siemens.com/curves/3RW5535-2HA06>

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

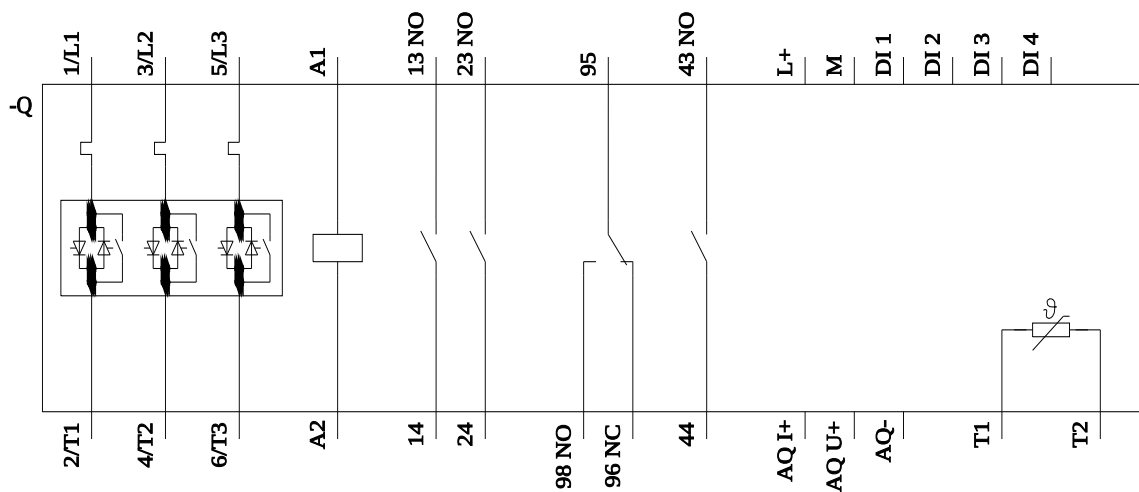
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5535-2HA06/char>

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>



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9/5/2025