

Siemens  
EcoTech



SIRIUS soft starter 200-600 V 32 A, 24 V AC/DC Screw terminals Thermistor input

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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>                              | 3RW52                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>manufacturer's article number</b>                         | <ul style="list-style-type: none"> <li>• of standard HMI module usable <a href="#">3RW5980-0HS00</a></li> <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 PROFIBUS usable <a href="#">3RW5980-0CP00</a></li> <li>• of communication module Modbus TCP usable <a href="#">3RW5980-0CT00</a></li> <li>• of communication module Modbus RTU usable <a href="#">3RW5980-0CR00</a></li> <li>• of communication module Ethernet/IP <a href="#">3RW5980-0CE00</a></li> <li>• of circuit breaker usable at 400 V <a href="#">3RV2032-4VA10; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V <a href="#">3RV2032-4VA10; Type of coordination 1, Iq = 10 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 400 V at inside-delta circuit <a href="#">3RV2032-4JA10; Type of coordination 1, Iq = 65 kA, CLASS 10</a></li> <li>• of circuit breaker usable at 500 V at inside-delta circuit <a href="#">3RV2032-4JA10; Type of coordination 1, Iq = 10 kA, CLASS 10</a></li> <li>• of the gG fuse usable up to 690 V <a href="#">3NA3824-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of the gG fuse usable at inside-delta circuit up to 500 V <a href="#">3NA3824-6; Type of coordination 1, Iq = 65 kA</a></li> <li>• of full range R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE1818-0; 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="#">3NE8022-1; Type of coordination 2, Iq = 65 kA</a></li> </ul> |
| <b>General technical data</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>starting voltage [%]</b>                                  | 30 ... 100 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>stopping voltage [%]</b>                                  | 50 %; non-adjustable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>start-up ramp time of soft starter</b>                    | 0 ... 20 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>current limiting value [%] adjustable</b>                 | 130 ... 700 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>certificate of suitability</b>                            | <ul style="list-style-type: none"> <li>• CE marking 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 No</li> <li>• is supported HMI-Standard 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>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>insulation voltage rated value</b>                        | 600 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>degree of pollution</b>                                   | 3, acc. to IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>impulse voltage rated value</b>                           | 6 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>blocking voltage of the thyristor maximum</b>             | 1 600 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>service factor</b>                                        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>surge voltage resistance rated value</b>                  | 6 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>maximum permissible voltage for protective separation</b> | <ul style="list-style-type: none"> <li>• between main and auxiliary circuit 600 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| <b>shock resistance</b>                                                             | 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting                                                                                                                                                                                                                                                                                                                                                              |
| <b>vibration resistance</b>                                                         | 15 mm to 6 Hz; 2 g to 500 Hz                                                                                                                                                                                                                                                                                                                                                                                                |
| utilization category according to IEC 60947-4-2                                     | AC 53a                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>reference code according to IEC 81346-2</b>                                      | Q                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Substance Prohibitance (day/month/year)</b>                                      | 02/15/2018                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>SVHC substance name</b>                                                          | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol CAS-No. 79-94-7<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1<br>Dibutylbis(pentane-2,4-dionato-O,O')tin CAS-No. 22673-19-4<br>Diboron trioxide CAS-No. 1303-86-2 |
| <b>Net Weight</b>                                                                   | 2.3 kg                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>product function</b>                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • ramp-up (soft starting)                                                           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • soft stopping                                                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • Soft Torque                                                                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • adjustable current limitation                                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • pump stop                                                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • intrinsic device protection                                                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • motor overload protection                                                         | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)                                                                                                                                                                                                                                                                                                                           |
| • evaluation of thermistor motor protection                                         | Yes; Type A PTC or Klixon / Thermoclick                                                                                                                                                                                                                                                                                                                                                                                     |
| • inside-delta circuit                                                              | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • auto-RESET                                                                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • manual RESET                                                                      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • remote reset                                                                      | Yes; By turning off the control supply voltage                                                                                                                                                                                                                                                                                                                                                                              |
| • communication function                                                            | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • operating measured value display                                                  | Yes; Only in conjunction with special accessories                                                                                                                                                                                                                                                                                                                                                                           |
| • error logbook                                                                     | Yes; Only in conjunction with special accessories                                                                                                                                                                                                                                                                                                                                                                           |
| • via software parameterizable                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                          |
| • via software configurable                                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • <b>PROFenergy</b>                                                                 | Yes; in connection with the PROFINET Standard communication module                                                                                                                                                                                                                                                                                                                                                          |
| • <b>firmware update</b>                                                            | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • <b>removable terminal for control circuit</b>                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • torque control                                                                    | No                                                                                                                                                                                                                                                                                                                                                                                                                          |
| • analog output                                                                     | No                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Power Electronics</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>operational current</b>                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • at 40 °C rated value                                                              | 32 A                                                                                                                                                                                                                                                                                                                                                                                                                        |
| • at 50 °C rated value                                                              | 28.4 A                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • at 60 °C rated value                                                              | 26 A                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>operational current at inside-delta circuit</b>                                  |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • at 40 °C rated value                                                              | 55.4 A                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • at 50 °C rated value                                                              | 49 A                                                                                                                                                                                                                                                                                                                                                                                                                        |
| • at 60 °C rated value                                                              | 45 A                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>operating voltage</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • rated value                                                                       | 200 ... 600 V                                                                                                                                                                                                                                                                                                                                                                                                               |
| • at inside-delta circuit rated value                                               | 200 ... 600 V                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the operating voltage</b>                         | -15 %                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>relative positive tolerance of the operating voltage</b>                         | 10 %                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>relative negative tolerance of the operating voltage at inside-delta circuit</b> | -15 %                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>relative positive tolerance of the operating voltage at inside-delta circuit</b> | 10 %                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>operating power for 3-phase motors</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • at 230 V at 40 °C rated value                                                     | 7.5 kW                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • at 230 V at inside-delta circuit at 40 °C rated value                             | 15 kW                                                                                                                                                                                                                                                                                                                                                                                                                       |
| • at 400 V at 40 °C rated value                                                     | 15 kW                                                                                                                                                                                                                                                                                                                                                                                                                       |
| • at 400 V at inside-delta circuit at 40 °C rated value                             | 22 kW                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| • at 500 V at 40 °C rated value                                          | 18.5 kW                                            |
| • at 500 V at inside-delta circuit at 40 °C rated value                  | 30 kW                                              |
| <b>Operating frequency 1 rated value</b>                                 | 50 Hz                                              |
| <b>Operating frequency 2 rated value</b>                                 | 60 Hz                                              |
| <b>relative negative tolerance of the operating frequency</b>            | -10 %                                              |
| <b>relative positive tolerance of the operating frequency</b>            | 10 %                                               |
| <b>adjustable motor current</b>                                          |                                                    |
| • at rotary coding switch on switch position 1                           | 14 A                                               |
| • at rotary coding switch on switch position 2                           | 15.2 A                                             |
| • at rotary coding switch on switch position 3                           | 16.4 A                                             |
| • at rotary coding switch on switch position 4                           | 17.6 A                                             |
| • at rotary coding switch on switch position 5                           | 18.8 A                                             |
| • at rotary coding switch on switch position 6                           | 20 A                                               |
| • at rotary coding switch on switch position 7                           | 21.2 A                                             |
| • at rotary coding switch on switch position 8                           | 22.4 A                                             |
| • at rotary coding switch on switch position 9                           | 23.6 A                                             |
| • at rotary coding switch on switch position 10                          | 24.8 A                                             |
| • at rotary coding switch on switch position 11                          | 26 A                                               |
| • at rotary coding switch on switch position 12                          | 27.2 A                                             |
| • at rotary coding switch on switch position 13                          | 28.4 A                                             |
| • at rotary coding switch on switch position 14                          | 29.6 A                                             |
| • at rotary coding switch on switch position 15                          | 30.8 A                                             |
| • at rotary coding switch on switch position 16                          | 32 A                                               |
| • minimum                                                                | 14 A                                               |
| <b>adjustable motor current</b>                                          |                                                    |
| • for inside-delta circuit at rotary coding switch on switch position 1  | 24.2 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 2  | 26.3 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 3  | 28.4 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 4  | 30.5 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 5  | 32.6 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 6  | 34.6 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 7  | 36.7 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 8  | 38.8 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 9  | 40.9 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 10 | 43 A                                               |
| • for inside-delta circuit at rotary coding switch on switch position 11 | 45 A                                               |
| • for inside-delta circuit at rotary coding switch on switch position 12 | 47.1 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 13 | 49.2 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 14 | 51.3 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 15 | 53.3 A                                             |
| • for inside-delta circuit at rotary coding switch on switch position 16 | 55.4 A                                             |
| • at inside-delta circuit minimum                                        | 24.2 A                                             |
| <b>minimum load [%]</b>                                                  | 15 %; Relative to smallest settable I <sub>e</sub> |
| <b>power loss [W] for rated value of the current at AC</b>               |                                                    |
| • at 40 °C after startup                                                 | 22 W                                               |
| • at 50 °C after startup                                                 | 21 W                                               |
| • at 60 °C after startup                                                 | 20 W                                               |
| <b>power loss [W] at AC at current limitation 350 %</b>                  |                                                    |

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| <ul style="list-style-type: none"> <li>• at 40 °C during startup</li> <li>• at 50 °C during startup</li> <li>• at 60 °C during startup</li> </ul> | 531 W<br>449 W<br>395 W                                                                                                                                                        |
| <b>Control circuit/ Control</b>                                                                                                                   |                                                                                                                                                                                |
| <b>type of voltage of the control supply voltage</b>                                                                                              | AC/DC                                                                                                                                                                          |
| <b>control supply voltage at AC</b>                                                                                                               |                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                          | 24 V<br>24 V                                                                                                                                                                   |
| <b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>                                                                   | -20 %                                                                                                                                                                          |
| <b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>                                                                   | 20 %                                                                                                                                                                           |
| <b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>                                                                   | -20 %                                                                                                                                                                          |
| <b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>                                                                   | 20 %                                                                                                                                                                           |
| <b>control supply voltage frequency</b>                                                                                                           | 50 ... 60 Hz                                                                                                                                                                   |
| <b>relative negative tolerance of the control supply voltage frequency</b>                                                                        | -10 %                                                                                                                                                                          |
| <b>relative positive tolerance of the control supply voltage frequency</b>                                                                        | 10 %                                                                                                                                                                           |
| <b>control supply voltage at DC rated value</b>                                                                                                   | 24 V                                                                                                                                                                           |
| <b>relative negative tolerance of the control supply voltage at DC</b>                                                                            | -20 %                                                                                                                                                                          |
| <b>relative positive tolerance of the control supply voltage at DC</b>                                                                            | 20 %                                                                                                                                                                           |
| <b>control supply current in standby mode rated value</b>                                                                                         | 160 mA                                                                                                                                                                         |
| <b>holding current in bypass operation rated value</b>                                                                                            | 360 mA                                                                                                                                                                         |
| <b>inrush current by closing the bypass contacts maximum</b>                                                                                      | 0.75 A                                                                                                                                                                         |
| inrush current peak at application of control supply voltage maximum                                                                              | 3.3 A                                                                                                                                                                          |
| duration of inrush current peak at application of control supply voltage                                                                          | 12.1 ms                                                                                                                                                                        |
| <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>                                                                                                                   | 1                                                                                                                                                                              |
| <b>number of digital outputs</b>                                                                                                                  | 3                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• not parameterizable</li> </ul>                                                                           | 2                                                                                                                                                                              |
| <b>digital output version</b>                                                                                                                     | 2 normally-open contacts (NO) / 1 changeover contact (CO)                                                                                                                      |
| <b>number of analog outputs</b>                                                                                                                   | 0                                                                                                                                                                              |
| <b>switching capacity current of the relay outputs</b>                                                                                            |                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• at AC-15 at 250 V rated value</li> <li>• at DC-13 at 24 V rated value</li> </ul>                         | 3 A<br>1 A                                                                                                                                                                     |
| <b>Installation/ mounting/ dimensions</b>                                                                                                         |                                                                                                                                                                                |
| <b>mounting position</b>                                                                                                                          | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back                                                       |
| <b>fastening method</b>                                                                                                                           | screw fixing                                                                                                                                                                   |
| <b>height</b>                                                                                                                                     | 275 mm                                                                                                                                                                         |
| <b>width</b>                                                                                                                                      | 170 mm                                                                                                                                                                         |
| <b>depth</b>                                                                                                                                      | 152 mm                                                                                                                                                                         |
| required spacing with side-by-side mounting                                                                                                       |                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• forwards</li> <li>• backwards</li> <li>• upwards</li> <li>• downwards</li> <li>• at the side</li> </ul>  | 10 mm<br>0 mm<br>100 mm<br>75 mm<br>5 mm                                                                                                                                       |
| <b>weight without packaging</b>                                                                                                                   | 2.3 kg                                                                                                                                                                         |
| <b>Connections/ Terminals</b>                                                                                                                     |                                                                                                                                                                                |
| <b>type of electrical connection</b>                                                                                                              |                                                                                                                                                                                |

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| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for control circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | screw-type terminals<br>screw-type terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>wire length for thermistor connection</b> <ul style="list-style-type: none"> <li>• with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                   | 50 m<br>150 m<br>250 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for main current circuit solid</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      | 2x (1.0 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )<br>2x (1.0 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6.0 mm <sup>2</sup> )<br>2x (16 ... 12), 2x (14 ... 8)                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for control circuit solid</li> <li>• for control circuit finely stranded with core end processing</li> <li>• for AWG cables for control circuit solid</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )<br>1x (20 ... 12), 2x (20 ... 14)                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>wire length</b> <ul style="list-style-type: none"> <li>• between soft starter and motor maximum</li> <li>• at the digital inputs at AC maximum</li> <li>• at the digital inputs at DC maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 800 m<br>100 m<br>1 000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>tightening torque</b> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 ... 2.5 N·m<br>0.8 ... 1.2 N·m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>tightening torque [lbf·in]</b> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary and control contacts with screw-type terminals</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 18 ... 22 lbf·in<br>7 ... 10.3 lbf·in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Ambient conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| installation altitude at height above sea level maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5 000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ambient temperature</b> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage and transport</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -25 ... +60 °C; Please observe derating at temperatures of 40 °C or above<br>-40 ... +80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>environmental category</b> <ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during transport according to IEC 60721</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6<br>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4<br>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)                                                                                                                                                                                                                                                                                                                   |
| <b>Electromagnetic compatibility</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>EMC emitted interference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | acc. to IEC 60947-4-2: Class A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Communication/ Protocol</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>communication module is supported</b> <ul style="list-style-type: none"> <li>• PROFINET standard</li> <li>• EtherNet/IP</li> <li>• Modbus RTU</li> <li>• Modbus TCP</li> <li>• PROFIBUS</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes<br>Yes<br>Yes<br>Yes<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>manufacturer's article number</b> <ul style="list-style-type: none"> <li>• of circuit breaker usable for Standard Faults <ul style="list-style-type: none"> <li>— at 460/480 V according to UL</li> <li>— 60/480 V according to UL</li> <li>— at 460/480 V at inside-delta circuit according to UL</li> <li>— 60/480 V at inside-delta circuit according to UL</li> <li>— at 575/600 V according to UL</li> <li>— at 575/600 V at inside-delta circuit according to UL</li> </ul> </li> <li>• of the fuse <ul style="list-style-type: none"> <li>— usable for Standard Faults up to 575/600 V according to UL</li> <li>— usable for High Faults up to 575/600 V according to</li> </ul> </li> </ul> | Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; I <sub>q</sub> = 5 kA<br>Siemens type: 3RV2742, max. 40 A or 3VA51, max. 60 A; I <sub>q</sub> max = 65 kA<br>Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; I <sub>q</sub> = 5 kA<br>Siemens type: 3VA51, max. 60 A; I <sub>q</sub> max = 65 kA<br>Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; I <sub>q</sub> = 5 kA<br>Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; I <sub>q</sub> = 5 kA<br>Type: Class RK5 / K5, max. 125 A; I <sub>q</sub> = 5 kA<br>Type: Class J / L, max. 125 A; I <sub>q</sub> = 100 kA |

|                                                                                      |                                                         |
|--------------------------------------------------------------------------------------|---------------------------------------------------------|
| UL                                                                                   |                                                         |
| — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL | Type: Class RK5 / K5, max. 125 A; I <sub>q</sub> = 5 kA |
| — usable for High Faults at inside-delta circuit up to 575/600 V according to UL     | Type: Class J / L, max. 125 A; I <sub>q</sub> = 100 kA  |
| <b>operating power [hp] for 3-phase motors</b>                                       |                                                         |
| • at 200/208 V at 50 °C rated value                                                  | 7.5 hp                                                  |
| • at 220/230 V at 50 °C rated value                                                  | 10 hp                                                   |
| • at 460/480 V at 50 °C rated value                                                  | 20 hp                                                   |
| • at 575/600 V at 50 °C rated value                                                  | 25 hp                                                   |
| • at 200/208 V at inside-delta circuit at 50 °C rated value                          | 15 hp                                                   |
| • at 220/230 V at inside-delta circuit at 50 °C rated value                          | 15 hp                                                   |
| • at 460/480 V at inside-delta circuit at 50 °C rated value                          | 30 hp                                                   |
| • at 575/600 V at inside-delta circuit at 50 °C rated value                          | 40 hp                                                   |
| <b>contact rating of auxiliary contacts according to UL</b>                          | R300-B300                                               |
| <b>Electrical Safety</b>                                                             |                                                         |
| <b>protection class IP on the front according to IEC 60529</b>                       | IP20                                                    |
| <b>touch protection on the front according to IEC 60529</b>                          | finger-safe, for vertical contact from the front        |
| <b>Approvals Certificates</b>                                                        |                                                         |
| <b>Environmental Product Declaration</b>                                             |                                                         |
| • global warming potential [CO <sub>2</sub> eq] / during manufacturing               | 37.2 kg                                                 |
| • global warming potential [CO <sub>2</sub> eq] / during sales                       | 0.66 kg                                                 |
| • global warming potential [CO <sub>2</sub> eq] / during operation                   | 152 kg                                                  |
| • global warming potential [CO <sub>2</sub> eq] / after end of life                  | -4.19 kg                                                |
| • global warming potential [CO <sub>2</sub> eq] / total                              | 185 kg                                                  |
| <b>Environment</b>                                                                   | <b>General Product Approval</b>                         |

[Environmental Confirmations](#)



|                                 |            |                          |                             |
|---------------------------------|------------|--------------------------|-----------------------------|
| <b>General Product Approval</b> | <b>EMV</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|---------------------------------|------------|--------------------------|-----------------------------|



[Type Test Certificates/Test Report](#)



|                             |              |
|-----------------------------|--------------|
| <b>Maritime application</b> | <b>other</b> |
|-----------------------------|--------------|



[Confirmation](#)

[Confirmation](#)

|              |
|--------------|
| <b>other</b> |
|--------------|



|                            |
|----------------------------|
| <b>Further information</b> |
|----------------------------|

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=3RW5216-1TC05>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5216-1TC05>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5216-1TC05&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5216-1TC05&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5216-1TC05>

Characteristic curves

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

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

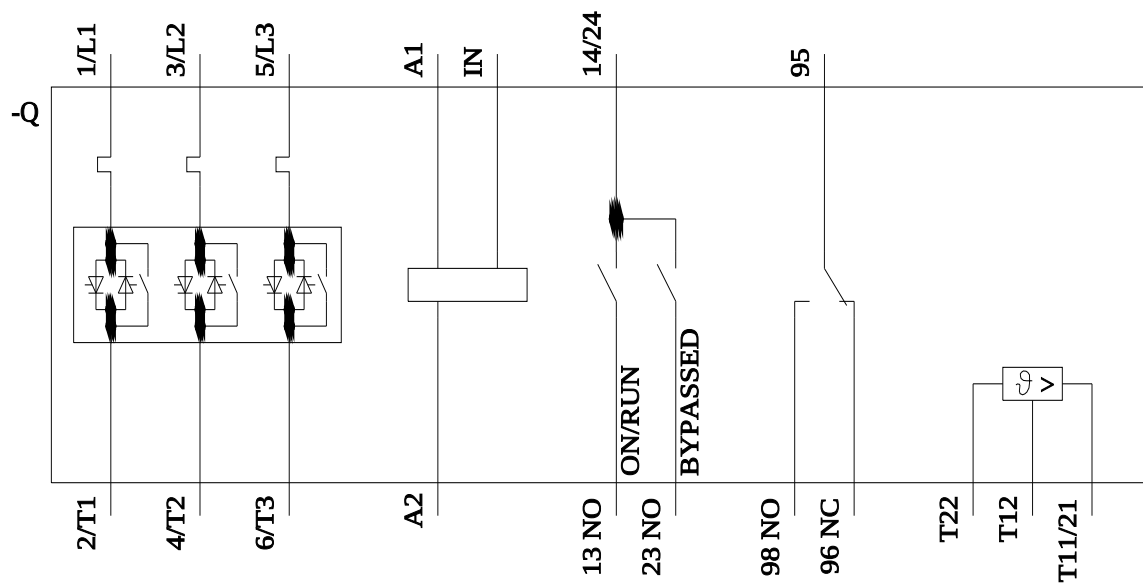
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5216-1TC05/char>

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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4/4/2026

