

Siemens  
EcoTech



SIRIUS soft starter 200-480 V 210 A, 110-250 V AC Screw terminals Analog output

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>product brand name</b>                               | SIRIUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>product category</b>                                 | Hybrid switching devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>product designation</b>                              | Soft starter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>product type designation</b>                         | 3RW50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>manufacturer's article number</b>                    | <ul style="list-style-type: none"> <li>• of high feature HMI module usable <a href="#">3RW5980-0HF00</a></li> <li>• of communication module PROFINET standard usable <a href="#">3RW5980-0CS00</a></li> <li>• of communication module 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="#">3VA2440-7MN32-0AA0; Type of assignment 1, Iq = 65 kA</a></li> <li>• of circuit breaker usable at 500 V <a href="#">3VA2440-7MN32-0AA0; Type of assignment 1, Iq = 65 kA</a></li> <li>• of the gG fuse usable up to 690 V <a href="#">2x3NA3354-6; 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="#">3NE1 230-2; Type of coordination 2, Iq = 65 kA</a></li> <li>• of back-up R fuse link for semiconductor protection usable up to 690 V <a href="#">3NE3 333; Type of coordination 2, Iq = 65 kA</a></li> <li>• of line contactor usable up to 480 V <a href="#">3RT1064</a></li> <li>• of line contactor usable up to 690 V <a href="#">3RT1064</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>ramp-down 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>                      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>buffering time in the event of power failure</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                                               |                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • for main current circuit                                    | 100 ms                                                                                                                                                                                                                                              |
| • for control circuit                                         | 100 ms                                                                                                                                                                                                                                              |
| <b>insulation voltage rated value</b>                         | 600 V                                                                                                                                                                                                                                               |
| <b>degree of pollution</b>                                    | 3, acc. to IEC 60947-4-2                                                                                                                                                                                                                            |
| <b>impulse voltage rated value</b>                            | 6 kV                                                                                                                                                                                                                                                |
| <b>blocking voltage of the thyristor maximum</b>              | 1 600 V                                                                                                                                                                                                                                             |
| <b>service factor</b>                                         | 1                                                                                                                                                                                                                                                   |
| <b>surge voltage resistance rated value</b>                   | 6 kV                                                                                                                                                                                                                                                |
| <b>maximum permissible voltage for protective separation</b>  |                                                                                                                                                                                                                                                     |
| • between main and auxiliary circuit                          | 600 V                                                                                                                                                                                                                                               |
| <b>shock resistance</b>                                       | 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting                                                                                                                                                                                      |
| <b>vibration resistance</b>                                   | 15 mm to 6 Hz; 2 g to 500 Hz                                                                                                                                                                                                                        |
| utilization category according to IEC 60947-4-2               | AC-53a                                                                                                                                                                                                                                              |
| <b>reference code according to IEC 81346-2</b>                | Q                                                                                                                                                                                                                                                   |
| <b>Substance Prohibitance (day/month/year)</b>                | 09/23/2019                                                                                                                                                                                                                                          |
| <b>SVHC substance name</b>                                    | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| <b>Net Weight</b>                                             | 6.88 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; Electronic motor overload protection                                                                                                                                                                                                           |
| • evaluation of thermistor motor protection                   | No                                                                                                                                                                                                                                                  |
| • 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>PROFInergy</b>                                           | Yes; in connection with the PROFINET Standard communication module                                                                                                                                                                                  |
| • voltage ramp                                                | Yes                                                                                                                                                                                                                                                 |
| • torque control                                              | No                                                                                                                                                                                                                                                  |
| • analog output                                               | Yes; 4 ... 20 mA (default) / 0 ... 10 V (parameterizable with High Feature HMI)                                                                                                                                                                     |
| <b>Power Electronics</b>                                      |                                                                                                                                                                                                                                                     |
| <b>operational current</b>                                    |                                                                                                                                                                                                                                                     |
| • at 40 °C rated value                                        | 210 A                                                                                                                                                                                                                                               |
| • at 50 °C rated value                                        | 186 A                                                                                                                                                                                                                                               |
| • at 60 °C rated value                                        | 170 A                                                                                                                                                                                                                                               |
| <b>operating voltage</b>                                      |                                                                                                                                                                                                                                                     |
| • rated value                                                 | 200 ... 480 V                                                                                                                                                                                                                                       |
| <b>relative negative tolerance of the operating voltage</b>   | -15 %                                                                                                                                                                                                                                               |
| <b>relative positive tolerance of the operating voltage</b>   | 10 %                                                                                                                                                                                                                                                |
| <b>operating power for 3-phase motors</b>                     |                                                                                                                                                                                                                                                     |
| • at 230 V at 40 °C rated value                               | 55 kW                                                                                                                                                                                                                                               |
| • at 400 V at 40 °C rated value                               | 110 kW                                                                                                                                                                                                                                              |
| <b>Operating frequency 1 rated value</b>                      | 50 Hz                                                                                                                                                                                                                                               |
| <b>Operating frequency 2 rated value</b>                      | 60 Hz                                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the operating frequency</b> | -10 %                                                                                                                                                                                                                                               |
| <b>relative positive tolerance of the operating frequency</b> | 10 %                                                                                                                                                                                                                                                |
| <b>adjustable motor current</b>                               |                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at rotary coding switch on switch position 1</li> <li>• at rotary coding switch on switch position 2</li> <li>• at rotary coding switch on switch position 3</li> <li>• at rotary coding switch on switch position 4</li> <li>• at rotary coding switch on switch position 5</li> <li>• at rotary coding switch on switch position 6</li> <li>• at rotary coding switch on switch position 7</li> <li>• at rotary coding switch on switch position 8</li> <li>• at rotary coding switch on switch position 9</li> <li>• at rotary coding switch on switch position 10</li> <li>• at rotary coding switch on switch position 11</li> <li>• at rotary coding switch on switch position 12</li> <li>• at rotary coding switch on switch position 13</li> <li>• at rotary coding switch on switch position 14</li> <li>• at rotary coding switch on switch position 15</li> <li>• at rotary coding switch on switch position 16</li> <li>• minimum</li> </ul> | 90 A<br>98 A<br>106 A<br>114 A<br>122 A<br>130 A<br>138 A<br>146 A<br>154 A<br>162 A<br>170 A<br>178 A<br>186 A<br>194 A<br>202 A<br>210 A<br>90 A                                                                                 |
| <b>minimum load [%]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 15 %; Relative to smallest settable I <sub>e</sub>                                                                                                                                                                                 |
| <b>power loss [W] for rated value of the current at AC</b> <ul style="list-style-type: none"> <li>• at 40 °C after startup</li> <li>• at 50 °C after startup</li> <li>• at 60 °C after startup</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 16 W<br>13 W<br>11 W                                                                                                                                                                                                               |
| <b>power loss [W] at AC at current limitation 350%</b> <ul style="list-style-type: none"> <li>• at 40 °C during startup</li> <li>• at 50 °C during startup</li> <li>• at 60 °C during startup</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2 237 W<br>1 867 W<br>1 637 W                                                                                                                                                                                                      |
| <b>type of the motor protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Electronic, tripping in the event of thermal overload of the motor                                                                                                                                                                 |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AC                                                                                                                                                                                                                                 |
| <b>control supply voltage at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 110 ... 250 V<br>110 ... 250 V                                                                                                                                                                                                     |
| <b>relative negative tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -15 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 50 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 %                                                                                                                                                                                                                               |
| <b>relative negative tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -15 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage at AC at 60 Hz</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 %                                                                                                                                                                                                                               |
| <b>control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50 ... 60 Hz                                                                                                                                                                                                                       |
| <b>relative negative tolerance of the control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -10 %                                                                                                                                                                                                                              |
| <b>relative positive tolerance of the control supply voltage frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10 %                                                                                                                                                                                                                               |
| <b>control supply current in standby mode rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 30 mA                                                                                                                                                                                                                              |
| <b>holding current in bypass operation rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 105 mA                                                                                                                                                                                                                             |
| <b>inrush current by closing the bypass contacts maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2.2 A                                                                                                                                                                                                                              |
| inrush current peak at application of control supply voltage maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12.2 A                                                                                                                                                                                                                             |
| duration of inrush current peak at application of control supply voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.2 ms                                                                                                                                                                                                                             |
| <b>design of the overvoltage protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Varistor                                                                                                                                                                                                                           |
| <b>design of short-circuit protection for control circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4 A gG fuse (I <sub>cu</sub> =1 kA), 6 A quick-acting fuse (I <sub>cu</sub> =1 kA), C1 miniature circuit breaker (I <sub>cu</sub> = 600 A), C6 miniature circuit breaker (I <sub>cu</sub> = 300 A); Is not part of scope of supply |
| <b>Inputs/ Outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                    |
| <b>number of digital inputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                                                  |
| <b>number of digital outputs</b> <ul style="list-style-type: none"> <li>• not parameterizable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3<br>2                                                                                                                                                                                                                             |
| <b>digital output version</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2 normally-open contacts (NO) / 1 changeover contact (CO)                                                                                                                                                                          |
| <b>number of analog outputs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                                                  |

|                                                                                        |                                                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>switching capacity current of the relay outputs</b>                                 |                                                                                                                          |
| • at AC-15 at 250 V rated value                                                        | 3 A                                                                                                                      |
| • at DC-13 at 24 V rated value                                                         | 1 A                                                                                                                      |
| <b>Installation/ mounting/ dimensions</b>                                              |                                                                                                                          |
| <b>mounting position</b>                                                               | 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>                                                                          | 230 mm                                                                                                                   |
| <b>width</b>                                                                           | 160 mm                                                                                                                   |
| <b>depth</b>                                                                           | 282 mm                                                                                                                   |
| required spacing with side-by-side mounting                                            |                                                                                                                          |
| • forwards                                                                             | 10 mm                                                                                                                    |
| • backwards                                                                            | 0 mm                                                                                                                     |
| • upwards                                                                              | 100 mm                                                                                                                   |
| • downwards                                                                            | 75 mm                                                                                                                    |
| • at the side                                                                          | 5 mm                                                                                                                     |
| <b>weight without packaging</b>                                                        | 7.3 kg                                                                                                                   |
| <b>Connections/ Terminals</b>                                                          |                                                                                                                          |
| <b>type of electrical connection</b>                                                   |                                                                                                                          |
| • for main current circuit                                                             | busbar connection                                                                                                        |
| • for control circuit                                                                  | screw-type terminals                                                                                                     |
| <b>width of connection bar maximum</b>                                                 | 35 mm; with connection cover 3RT1966-4EA1 maximum length 45 mm                                                           |
| <b>type of connectable conductor cross-sections for main contacts for box terminal</b> |                                                                                                                          |
| • using the front clamping point solid                                                 | 95 ... 300 mm²                                                                                                           |
| • using the front clamping point finely stranded with core end processing              | 70 ... 240 mm²                                                                                                           |
| • using the front clamping point finely stranded without core end processing           | 70 ... 240 mm²                                                                                                           |
| • using the front clamping point stranded                                              | 95 ... 300 mm²                                                                                                           |
| • using the back clamping point solid                                                  | 120 ... 240 mm²                                                                                                          |
| • r box terminal using the back clamping point                                         | 250 ... 500 kcmil                                                                                                        |
| • using both clamping points solid                                                     | min. 2x 70 mm², max. 2x 240 mm²                                                                                          |
| • using both clamping points finely stranded with core end processing                  | min. 2x 50 mm², max. 2x 185 mm²                                                                                          |
| • using both clamping points finely stranded without core end processing               | min. 2x 50 mm², max. 2x 185 mm²                                                                                          |
| • using both clamping points stranded                                                  | min. 2x 70 mm², max. 2x 240 mm²                                                                                          |
| • using the back clamping point finely stranded with core end processing               | 120 ... 185 mm²                                                                                                          |
| • using the back clamping point finely stranded without core end processing            | 120 ... 185 mm²                                                                                                          |
| • using the back clamping point stranded                                               | 120 ... 240 mm²                                                                                                          |
| <b>type of connectable conductor cross-sections</b>                                    |                                                                                                                          |
| • for AWG cables for main current circuit solid                                        | 2/0 ... 500 kcmil                                                                                                        |
| • for DIN cable lug for main contacts stranded                                         | 50 ... 240 mm²                                                                                                           |
| • for DIN cable lug for main contacts finely stranded                                  | 70 ... 240 mm²                                                                                                           |
| <b>type of connectable conductor cross-sections</b>                                    |                                                                                                                          |
| • for control circuit solid                                                            | 1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)                                                                               |
| • for control circuit finely stranded with core end processing                         | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)                                                                               |
| • for AWG cables for control circuit solid                                             | 1x (20 ... 12), 2x (20 ... 14)                                                                                           |
| <b>wire length</b>                                                                     |                                                                                                                          |
| • between soft starter and motor maximum                                               | 800 m                                                                                                                    |
| • at the digital inputs at AC maximum                                                  | 1 000 m                                                                                                                  |
| <b>tightening torque</b>                                                               |                                                                                                                          |
| • for main contacts with screw-type terminals                                          | 14 ... 24 N·m                                                                                                            |
| • for auxiliary and control contacts with screw-type terminals                         | 0.8 ... 1.2 N·m                                                                                                          |
| <b>tightening torque [lbf·in]</b>                                                      |                                                                                                                          |
| • for main contacts with screw-type terminals                                          | 124 ... 210 lbf·in                                                                                                       |
| • for auxiliary and control contacts with screw-type terminals                         | 7 ... 10.3 lbf·in                                                                                                        |

|                                                                                                 |                                                                                                                         |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Ambient conditions</b>                                                                       |                                                                                                                         |
| installation altitude at height above sea level maximum                                         | 5 000 m                                                                                                                 |
| <b>ambient temperature</b>                                                                      |                                                                                                                         |
| • during operation                                                                              | -25 ... +60 °C; Please observe derating at temperatures of 40 °C or above                                               |
| • during storage and transport                                                                  | -40 ... +80 °C                                                                                                          |
| <b>environmental category</b>                                                                   |                                                                                                                         |
| • during operation according to IEC 60721                                                       | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| • during storage according to IEC 60721                                                         | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4                 |
| • during transport according to IEC 60721                                                       | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)                                                                             |
| <b>Electromagnetic compatibility</b>                                                            |                                                                                                                         |
| <b>EMC emitted interference</b>                                                                 | acc. to IEC 60947-4-2: Class A                                                                                          |
| <b>Communication/ Protocol</b>                                                                  |                                                                                                                         |
| <b>communication module is supported</b>                                                        |                                                                                                                         |
| • PROFINET standard                                                                             | Yes                                                                                                                     |
| • EtherNet/IP                                                                                   | Yes                                                                                                                     |
| • Modbus RTU                                                                                    | Yes                                                                                                                     |
| • Modbus TCP                                                                                    | Yes                                                                                                                     |
| • PROFIBUS                                                                                      | Yes                                                                                                                     |
| <b>UL/CSA ratings</b>                                                                           |                                                                                                                         |
| <b>manufacturer's article number</b>                                                            |                                                                                                                         |
| • of circuit breaker                                                                            |                                                                                                                         |
| — usable for High Faults at 460/480 V according to UL                                           | Siemens type: 3VA54, max. 600 A; Iq max = 65 kA                                                                         |
| • of the fuse                                                                                   |                                                                                                                         |
| — usable for Standard Faults up to 575/600 V according to UL                                    | Type: Class L, max. 700 A; Iq = 10 kA                                                                                   |
| — usable for High Faults up to 575/600 V according to UL                                        | Type: Class L, max. 700 A; Iq = 100 kA                                                                                  |
| <b>operating power [hp] for 3-phase motors</b>                                                  |                                                                                                                         |
| • at 200/208 V at 50 °C rated value                                                             | 60 hp                                                                                                                   |
| • at 220/230 V at 50 °C rated value                                                             | 60 hp                                                                                                                   |
| • at 460/480 V at 50 °C rated value                                                             | 150 hp                                                                                                                  |
| <b>Electrical Safety</b>                                                                        |                                                                                                                         |
| <b>protection class IP on the front according to IEC 60529</b>                                  | IP00; IP20 with cover                                                                                                   |
| <b>touch protection on the front according to IEC 60529</b>                                     | finger-safe, for vertical contact from the front with cover                                                             |
| <b>ATEX</b>                                                                                     |                                                                                                                         |
| <b>Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX</b>                     | SIL 1                                                                                                                   |
| <b>PFHD with high demand rate according to IEC 61508 relating to ATEX</b>                       | 9E-6 1/h                                                                                                                |
| <b>PFDavg with low demand rate according to IEC 61508 relating to ATEX</b>                      | 0.09                                                                                                                    |
| <b>hardware fault tolerance according to IEC 61508 relating to ATEX</b>                         | 0                                                                                                                       |
| <b>T1 value for proof test interval or service life according to IEC 61508 relating to ATEX</b> | 3 a                                                                                                                     |
| <b>certificate of suitability</b>                                                               |                                                                                                                         |
| • ATEX                                                                                          | Yes                                                                                                                     |
| • IECEX                                                                                         | Yes                                                                                                                     |
| • UKEX                                                                                          | Yes                                                                                                                     |
| <b>Approvals Certificates</b>                                                                   |                                                                                                                         |
| <b>Environmental Product Declaration</b>                                                        |                                                                                                                         |
| • global warming potential [CO2 eq] / during manufacturing                                      | 87.4 kg                                                                                                                 |
| • global warming potential [CO2 eq] / during sales                                              | 2.05 kg                                                                                                                 |
| • global warming potential [CO2 eq] / during operation                                          | 407 kg                                                                                                                  |
| • global warming potential [CO2 eq] / after end of life                                         | -32.4 kg                                                                                                                |
| • global warming potential [CO2 eq] / total                                                     | 464 kg                                                                                                                  |
| <b>Environment</b>                                                                              | <b>General Product Approval</b>                                                                                         |

[Environmental Conformations](#)



General Product Approval

EMV

For use in hazardous locations



[Miscellaneous](#)

Test Certificates

Maritime application

[Type Test Certificates/Test Report](#)



other

[Confirmation](#)



Further information

Information on the packaging

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

Information for data generation and storage

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

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5072-6AB14>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5072-6AB14>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5072-6AB14&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5072-6AB14&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5072-6AB14>

Characteristic curves

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

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5072-6AB14/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>





