



power contactor, AC-3e/AC-3, 51 A, 22 kW / 400 V, 3-pole, 83-155 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S2, removable auxiliary switch

|                                                                                                              |                                                            |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>product brand name</b>                                                                                    | SIRIUS                                                     |
| <b>product designation</b>                                                                                   | Power contactor                                            |
| <b>product type designation</b>                                                                              | 3RT2                                                       |
| <b>General technical data</b>                                                                                |                                                            |
| <b>size of contactor</b>                                                                                     | S2                                                         |
| <b>product extension</b>                                                                                     |                                                            |
| • function module for communication                                                                          | No                                                         |
| • auxiliary switch                                                                                           | No                                                         |
| <b>power loss [W] for rated value of the current</b>                                                         |                                                            |
| • at AC in hot operating state                                                                               | 12 W                                                       |
| • at AC in hot operating state per pole                                                                      | 4 W                                                        |
| • without load current share typical                                                                         | 1 W                                                        |
| <b>type of calculation of power loss depending on pole</b>                                                   | quadratic                                                  |
| <b>insulation voltage</b>                                                                                    |                                                            |
| • of main circuit with degree of pollution 3 rated value                                                     | 690 V                                                      |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                                                      |
| <b>surge voltage resistance</b>                                                                              |                                                            |
| • of main circuit rated value                                                                                | 6 kV                                                       |
| • of auxiliary circuit rated value                                                                           | 6 kV                                                       |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V                                                      |
| <b>shock resistance at rectangular impulse</b>                                                               |                                                            |
| • at AC                                                                                                      | 6.1g / 5 ms, 3.7g / 10 ms                                  |
| • at DC                                                                                                      | 6.1g / 5 ms, 3.7g / 10 ms                                  |
| <b>shock resistance with sine pulse</b>                                                                      |                                                            |
| • at AC                                                                                                      | 9.6g / 5 ms, 5.8g / 10 ms                                  |
| • at DC                                                                                                      | 9.6g / 5 ms, 5.8g / 10 ms                                  |
| <b>mechanical service life (operating cycles)</b>                                                            |                                                            |
| • of contactor typical                                                                                       | 10 000 000                                                 |
| • of the contactor with added electronically optimized auxiliary switch block typical                        | 5 000 000                                                  |
| • of the contactor with added auxiliary switch block typical                                                 | 10 000 000                                                 |
| <b>reference code according to IEC 81346-2</b>                                                               | Q                                                          |
| <b>Substance Prohibition (Date)</b>                                                                          | 10/01/2014                                                 |
| <b>SVHC substance name</b>                                                                                   | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8 |
| <b>Weight</b>                                                                                                | 1.259 kg                                                   |
| <b>Ambient conditions</b>                                                                                    |                                                            |
| installation altitude at height above sea level maximum                                                      | 2 000 m                                                    |
| <b>ambient temperature</b>                                                                                   |                                                            |
| • during operation                                                                                           | -25 ... +60 °C                                             |

|                                                                        |                    |
|------------------------------------------------------------------------|--------------------|
| • during storage                                                       | -55 ... +80 °C     |
| <b>relative humidity minimum</b>                                       | 10 %               |
| <b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>  | 95 %               |
| <b>Environmental footprint</b>                                         |                    |
| Environmental Product Declaration(EPD)                                 | Yes                |
| global warming potential [CO2 eq] total                                | 107 kg             |
| global warming potential [CO2 eq] during manufacturing                 | 5.88 kg            |
| global warming potential [CO2 eq] during operation                     | 102 kg             |
| global warming potential [CO2 eq] after end of life                    | -0.988 kg          |
| <b>Main circuit</b>                                                    |                    |
| <b>number of poles for main current circuit</b>                        | 3                  |
| <b>number of NO contacts for main contacts</b>                         | 3                  |
| <b>number of NC contacts for main contacts</b>                         | 0                  |
| <b>operating voltage</b>                                               |                    |
| • at AC-3 rated value maximum                                          | 690 V              |
| • at AC-3e rated value maximum                                         | 690 V              |
| <b>operational current</b>                                             |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 70 A               |
| • at AC-1                                                              |                    |
| — up to 690 V at ambient temperature 40 °C rated value                 | 70 A               |
| — up to 690 V at ambient temperature 60 °C rated value                 | 60 A               |
| • at AC-3                                                              |                    |
| — at 400 V rated value                                                 | 51 A               |
| — at 500 V rated value                                                 | 51 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-3e                                                             |                    |
| — at 400 V rated value                                                 | 51 A               |
| — at 500 V rated value                                                 | 51 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-4 at 400 V rated value                                         | 41 A               |
| • at AC-5a up to 690 V rated value                                     | 61.6 A             |
| • at AC-5b up to 400 V rated value                                     | 41.5 A             |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 400 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 500 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 690 V for current peak value n=20 rated value                  | 24 A               |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 400 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 500 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 690 V for current peak value n=30 rated value                  | 24 A               |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 25 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                    |
| • at 400 V rated value                                                 | 24 A               |
| • at 690 V rated value                                                 | 20 A               |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 55 A               |
| — at 60 V rated value                                                  | 23 A               |
| — at 110 V rated value                                                 | 4.5 A              |
| — at 220 V rated value                                                 | 1 A                |
| — at 440 V rated value                                                 | 0.4 A              |
| — at 600 V rated value                                                 | 0.25 A             |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 55 A               |

|                                                                         |                                                           |
|-------------------------------------------------------------------------|-----------------------------------------------------------|
| — at 60 V rated value                                                   | 45 A                                                      |
| — at 110 V rated value                                                  | 45 A                                                      |
| — at 220 V rated value                                                  | 5 A                                                       |
| — at 440 V rated value                                                  | 1 A                                                       |
| — at 600 V rated value                                                  | 0.8 A                                                     |
| <b>● with 3 current paths in series at DC-1</b>                         |                                                           |
| — at 24 V rated value                                                   | 55 A                                                      |
| — at 60 V rated value                                                   | 55 A                                                      |
| — at 110 V rated value                                                  | 55 A                                                      |
| — at 220 V rated value                                                  | 45 A                                                      |
| — at 440 V rated value                                                  | 2.9 A                                                     |
| — at 600 V rated value                                                  | 1.4 A                                                     |
| <b>● at 1 current path at DC-3 at DC-5</b>                              |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 60 V rated value                                                   | 6 A                                                       |
| — at 220 V rated value                                                  | 1 A                                                       |
| — at 440 V rated value                                                  | 0.1 A                                                     |
| — at 600 V rated value                                                  | 0.06 A                                                    |
| <b>● with 2 current paths in series at DC-3 at DC-5</b>                 |                                                           |
| — at 24 V rated value                                                   | 55 A                                                      |
| — at 60 V rated value                                                   | 45 A                                                      |
| — at 110 V rated value                                                  | 25 A                                                      |
| — at 220 V rated value                                                  | 5 A                                                       |
| — at 440 V rated value                                                  | 0.27 A                                                    |
| — at 600 V rated value                                                  | 0.16 A                                                    |
| <b>● with 3 current paths in series at DC-3 at DC-5</b>                 |                                                           |
| — at 24 V rated value                                                   | 55 A                                                      |
| — at 60 V rated value                                                   | 55 A                                                      |
| — at 110 V rated value                                                  | 55 A                                                      |
| — at 220 V rated value                                                  | 25 A                                                      |
| — at 440 V rated value                                                  | 0.6 A                                                     |
| — at 600 V rated value                                                  | 0.35 A                                                    |
| <b>operating power</b>                                                  |                                                           |
| ● at AC-2 at 400 V rated value                                          | 22 kW                                                     |
| ● at AC-3                                                               |                                                           |
| — at 230 V rated value                                                  | 15 kW                                                     |
| — at 400 V rated value                                                  | 22 kW                                                     |
| — at 500 V rated value                                                  | 30 kW                                                     |
| — at 690 V rated value                                                  | 22 kW                                                     |
| ● at AC-3e                                                              |                                                           |
| — at 230 V rated value                                                  | 15 kW                                                     |
| — at 400 V rated value                                                  | 22 kW                                                     |
| — at 500 V rated value                                                  | 30 kW                                                     |
| — at 690 V rated value                                                  | 22 kW                                                     |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>      |                                                           |
| ● at 400 V rated value                                                  | 12.6 kW                                                   |
| ● at 690 V rated value                                                  | 18.2 kW                                                   |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| ● up to 230 V for current peak value n=20 rated value                   | 17.2 kVA                                                  |
| ● up to 400 V for current peak value n=20 rated value                   | 29.9 kVA                                                  |
| ● up to 500 V for current peak value n=20 rated value                   | 37.4 kVA                                                  |
| ● up to 690 V for current peak value n=20 rated value                   | 28.6 kVA                                                  |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| ● up to 230 V for current peak value n=30 rated value                   | 11.4 kVA                                                  |
| ● up to 400 V for current peak value n=30 rated value                   | 19.9 kVA                                                  |
| ● up to 500 V for current peak value n=30 rated value                   | 24.9 kVA                                                  |
| ● up to 690 V for current peak value n=30 rated value                   | 28.6 kVA                                                  |
| <b>short-time withstand current in cold operating state up to 40 °C</b> |                                                           |
| ● limited to 1 s switching at zero current maximum                      | 937 A; Use minimum cross-section acc. to AC-1 rated value |

|                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                  |
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| <ul style="list-style-type: none"> <li>• limited to 5 s switching at zero current maximum</li> <li>• limited to 10 s switching at zero current maximum</li> <li>• limited to 30 s switching at zero current maximum</li> <li>• limited to 60 s switching at zero current maximum</li> </ul>                                                                | 697 A; Use minimum cross-section acc. to AC-1 rated value<br>468 A; Use minimum cross-section acc. to AC-1 rated value<br>282 A; Use minimum cross-section acc. to AC-1 rated value<br>229 A; Use minimum cross-section acc. to AC-1 rated value |
| <b>no-load switching frequency</b>                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                 | 1 500 1/h<br>1 500 1/h                                                                                                                                                                                                                           |
| <b>operating frequency</b>                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-3e               <ul style="list-style-type: none"> <li>— maximum</li> </ul> </li> <li>• at AC-4 maximum</li> </ul>                                                                                                        | 1 000 1/h<br>600 1/h<br>800 1/h<br>800 1/h<br>250 1/h                                                                                                                                                                                            |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                  |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                       | AC/DC                                                                                                                                                                                                                                            |
| <b>control supply voltage at AC</b>                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                   | 83 ... 155 V<br>83 ... 155 V                                                                                                                                                                                                                     |
| <b>control supply voltage at DC rated value</b>                                                                                                                                                                                                                                                                                                            | 83 ... 155 V                                                                                                                                                                                                                                     |
| <b>operating range factor control supply voltage rated value of magnet coil at DC</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>                                                                                                                                                                                                                                                              | 0.8<br>1.1                                                                                                                                                                                                                                       |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 0.8 ... 1.1<br>0.8 ... 1.1                                                                                                                                                                                                                       |
| <b>design of the surge suppressor</b>                                                                                                                                                                                                                                                                                                                      | with varistor                                                                                                                                                                                                                                    |
| <b>inrush current peak</b>                                                                                                                                                                                                                                                                                                                                 | 1.5 A                                                                                                                                                                                                                                            |
| <b>duration of inrush current peak</b>                                                                                                                                                                                                                                                                                                                     | 50 µs                                                                                                                                                                                                                                            |
| <b>locked-rotor current mean value</b>                                                                                                                                                                                                                                                                                                                     | 0.45 A                                                                                                                                                                                                                                           |
| <b>locked-rotor current peak</b>                                                                                                                                                                                                                                                                                                                           | 0.8 A                                                                                                                                                                                                                                            |
| <b>duration of locked-rotor current</b>                                                                                                                                                                                                                                                                                                                    | 230 ms                                                                                                                                                                                                                                           |
| <b>holding current mean value</b>                                                                                                                                                                                                                                                                                                                          | 12 mA                                                                                                                                                                                                                                            |
| <b>apparent pick-up power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 40 VA<br>40 VA                                                                                                                                                                                                                                   |
| <b>apparent holding power</b>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at minimum rated control supply voltage at DC</li> <li>• at maximum rated control supply voltage at DC</li> </ul>                                                                                                                                                                                                 | 2 VA<br>2 VA                                                                                                                                                                                                                                     |
| <b>apparent holding power</b>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at minimum rated control supply voltage at AC               <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> <li>• at maximum rated control supply voltage at AC               <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> </ul> | 2 VA<br>2 VA<br>2 VA<br>2 VA                                                                                                                                                                                                                     |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 2 VA<br>2 VA                                                                                                                                                                                                                                     |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 0.95<br>0.95                                                                                                                                                                                                                                     |
| <b>closing power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                  | 23 W                                                                                                                                                                                                                                             |
| <b>holding power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                  | 1 W                                                                                                                                                                                                                                              |
| <b>closing delay</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                 | 35 ... 110 ms<br>35 ... 110 ms                                                                                                                                                                                                                   |
| <b>opening delay</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                  | 30 ... 55 ms                                                                                                                                                                                                                                     |

|                                                                                                           |                                                                                                                                      |
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| • at DC                                                                                                   | 30 ... 55 ms                                                                                                                         |
| <b>arcing time</b>                                                                                        | 10 ... 20 ms                                                                                                                         |
| <b>control version of the switch operating mechanism</b>                                                  | Standard A1 - A2                                                                                                                     |
| <b>Auxiliary circuit</b>                                                                                  |                                                                                                                                      |
| number of NC contacts for auxiliary contacts instantaneous contact                                        | 2                                                                                                                                    |
| number of NO contacts for auxiliary contacts instantaneous contact                                        | 2                                                                                                                                    |
| operational current at AC-12 maximum                                                                      | 10 A                                                                                                                                 |
| <b>operational current at AC-15</b>                                                                       |                                                                                                                                      |
| • at 230 V rated value                                                                                    | 6 A                                                                                                                                  |
| • at 400 V rated value                                                                                    | 3 A                                                                                                                                  |
| • at 500 V rated value                                                                                    | 2 A                                                                                                                                  |
| • at 690 V rated value                                                                                    | 1 A                                                                                                                                  |
| <b>operational current at DC-12</b>                                                                       |                                                                                                                                      |
| • at 24 V rated value                                                                                     | 10 A                                                                                                                                 |
| • at 48 V rated value                                                                                     | 6 A                                                                                                                                  |
| • at 60 V rated value                                                                                     | 6 A                                                                                                                                  |
| • at 110 V rated value                                                                                    | 3 A                                                                                                                                  |
| • at 125 V rated value                                                                                    | 2 A                                                                                                                                  |
| • at 220 V rated value                                                                                    | 1 A                                                                                                                                  |
| • at 600 V rated value                                                                                    | 0.15 A                                                                                                                               |
| <b>operational current at DC-13</b>                                                                       |                                                                                                                                      |
| • at 24 V rated value                                                                                     | 6 A                                                                                                                                  |
| • at 48 V rated value                                                                                     | 2 A                                                                                                                                  |
| • at 60 V rated value                                                                                     | 2 A                                                                                                                                  |
| • at 110 V rated value                                                                                    | 1 A                                                                                                                                  |
| • at 125 V rated value                                                                                    | 0.9 A                                                                                                                                |
| • at 220 V rated value                                                                                    | 0.3 A                                                                                                                                |
| • at 600 V rated value                                                                                    | 0.1 A                                                                                                                                |
| <b>contact reliability of auxiliary contacts</b>                                                          | 1 faulty switching per 100 million (17 V, 1 mA)                                                                                      |
| <b>UL/CSA ratings</b>                                                                                     |                                                                                                                                      |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                                       |                                                                                                                                      |
| • at 480 V rated value                                                                                    | 52 A                                                                                                                                 |
| • at 600 V rated value                                                                                    | 52 A                                                                                                                                 |
| <b>yielded mechanical performance [hp]</b>                                                                |                                                                                                                                      |
| • for single-phase AC motor                                                                               |                                                                                                                                      |
| — at 110/120 V rated value                                                                                | 3 hp                                                                                                                                 |
| — at 230 V rated value                                                                                    | 10 hp                                                                                                                                |
| • for 3-phase AC motor                                                                                    |                                                                                                                                      |
| — at 200/208 V rated value                                                                                | 15 hp                                                                                                                                |
| — at 220/230 V rated value                                                                                | 15 hp                                                                                                                                |
| — at 460/480 V rated value                                                                                | 40 hp                                                                                                                                |
| — at 575/600 V rated value                                                                                | 50 hp                                                                                                                                |
| <b>contact rating of auxiliary contacts according to UL</b>                                               | A600 / Q600                                                                                                                          |
| <b>Short-circuit protection</b>                                                                           |                                                                                                                                      |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA                                                                                                       |
| <b>design of the fuse link</b>                                                                            |                                                                                                                                      |
| • for short-circuit protection of the main circuit                                                        |                                                                                                                                      |
| — with type of coordination 1 required                                                                    | gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)                                                      |
| — with type of coordination 2 required                                                                    | gG: 80 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 63 A (415 V, 80 kA)                                                        |
| • for short-circuit protection of the auxiliary switch required                                           | gG: 10 A (500 V, 1 kA)                                                                                                               |
| <b>Installation/ mounting/ dimensions</b>                                                                 |                                                                                                                                      |
| <b>mounting position</b>                                                                                  | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| fastening method side-by-side mounting                                                                    | Yes                                                                                                                                  |
| <b>fastening method</b>                                                                                   | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                                                             | 114 mm                                                                                                                               |
| <b>width</b>                                                                                              | 55 mm                                                                                                                                |
| <b>depth</b>                                                                                              | 174 mm                                                                                                                               |

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| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 10 mm<br>10 mm<br>10 mm<br>0 mm<br><br>10 mm<br>10 mm<br>6 mm<br>10 mm<br><br>10 mm<br>10 mm<br>10 mm<br>6 mm                                                                    |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                  |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> </ul>                                                                                                                                                                                                                                                                                                                            | screw-type terminals<br>screw-type terminals<br>Screw-type terminals<br>Screw-type terminals                                                                                     |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for main contacts</li> </ul>                                                                                                                                                                                                                                                                                  | 2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )<br>2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> )<br>2x (18 ... 2), 1x (18 ... 1)                 |
| <b>connectable conductor cross-section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 ... 35 mm <sup>2</sup>                                                                                                                                                         |
| <b>connectable conductor cross-section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     | 0.5 ... 2.5 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup>                                                                                                                       |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>                                                                                                                                                                                                                                                                        | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 16), 2x (18 ... 14) |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 18 ... 1                                                                                                                                                                         |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20 ... 14                                                                                                                                                                        |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                  |
| <b>product function</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> <li>• suitable for safety function</li> </ul>                                                                                                                                                                                                                                                                                                                       | Yes<br>No<br>Yes                                                                                                                                                                 |
| suitability for use safety-related switching OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                                                                                                                                                              |
| <b>service life maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 a                                                                                                                                                                             |
| <b>test wear-related service life necessary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                                                                              |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> <li>• with high demand rate according to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         | 40 %<br>73 %                                                                                                                                                                     |
| <b>B10 value with high demand rate according to SN 31920</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 000 000                                                                                                                                                                        |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 100 FIT                                                                                                                                                                          |
| <b>ISO 13849</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                  |
| <b>device type according to ISO 13849-1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3                                                                                                                                                                                |
| <b>overdimensioning according to ISO 13849-2 necessary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes                                                                                                                                                                              |
| <b>IEC 61508</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                  |
| <b>safety device type according to IEC 61508-2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Type A                                                                                                                                                                           |
| Electrical Safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                  |

|                                                         |                                                  |
|---------------------------------------------------------|--------------------------------------------------|
| protection class IP on the front according to IEC 60529 | IP20                                             |
| touch protection on the front according to IEC 60529    | finger-safe, for vertical contact from the front |
| <b>Approvals Certificates</b>                           |                                                  |
| General Product Approval                                |                                                  |



KC



|     |                   |                      |
|-----|-------------------|----------------------|
| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                      |       |
|----------------------|-------|
| Maritime application | other |
|----------------------|-------|



[Confirmation](#)

[Confirmation](#)

|         |             |
|---------|-------------|
| Railway | Environment |
|---------|-------------|

[Special Test Certificate](#)



[Environmental Confirmations](#)

### 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=3RT2036-1NF34>

#### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2036-1NF34>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1NF34>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2036-1NF34&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2036-1NF34&lang=en)

#### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1NF34/char>

#### Further characteristics (e.g. electrical endurance, switching frequency)

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2036-1NF34&objecttype=14&gridview=view1>



