



power contactor, AC-3e/AC-3, 32 A, 15 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

|                                                                                                              |                            |
|--------------------------------------------------------------------------------------------------------------|----------------------------|
| product brand name                                                                                           | SIRIUS                     |
| product designation                                                                                          | Power contactor            |
| product type designation                                                                                     | 3RT2                       |
| <b>General technical data</b>                                                                                |                            |
| size of contactor                                                                                            | S0                         |
| product extension                                                                                            |                            |
| • function module for communication                                                                          | No                         |
| • auxiliary switch                                                                                           | Yes                        |
| power loss [W] for rated value of the current                                                                |                            |
| • at AC in hot operating state                                                                               | 6.3 W                      |
| • at AC in hot operating state per pole                                                                      | 2.3 W                      |
| • without load current share typical                                                                         | 2.7 W                      |
| type of calculation of power loss depending on pole                                                          | quadratic                  |
| insulation voltage                                                                                           |                            |
| • of main circuit with degree of pollution 3 rated value                                                     | 690 V                      |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                      |
| surge voltage resistance                                                                                     |                            |
| • 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                      |
| shock resistance at rectangular impulse                                                                      |                            |
| • at AC                                                                                                      | 8,3g / 5 ms, 5,3g / 10 ms  |
| shock resistance with sine pulse                                                                             |                            |
| • at AC                                                                                                      | 13,5g / 5 ms, 8,3g / 10 ms |
| mechanical service life (operating cycles)                                                                   |                            |
| • 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                 |
| reference code according to IEC 81346-2                                                                      | Q                          |
| Substance Prohibitance (Date)                                                                                | 10/01/2009                 |
| Net Weight                                                                                                   | 423 g                      |
| <b>Ambient conditions</b>                                                                                    |                            |
| installation altitude at height above sea level maximum                                                      | 2 000 m                    |
| ambient temperature                                                                                          |                            |
| • during operation                                                                                           | -25 ... +60 °C             |
| • during storage                                                                                             | -55 ... +80 °C             |
| relative humidity minimum                                                                                    | 10 %                       |
| relative humidity at 55 °C according to IEC 60068-2-30                                                       | 95 %                       |

|                                                                   |                    |
|-------------------------------------------------------------------|--------------------|
| maximum                                                           |                    |
| <b>Environmental footprint</b>                                    |                    |
| Environmental Product Declaration (EPD)                           | Yes                |
| global warming potential [CO2 eq] total                           | 74.2 kg            |
| global warming potential [CO2 eq] during manufacturing            | 1.9 kg             |
| global warming potential [CO2 eq] during operation                | 72.4 kg            |
| global warming potential [CO2 eq] after end of life               | -0.117 kg          |
| <b>Main circuit</b>                                               |                    |
| number of poles for main current circuit                          | 3                  |
| number of NO contacts for main contacts                           | 3                  |
| number of NC contacts for main contacts                           | 0                  |
| operating voltage                                                 |                    |
| • at AC-3 rated value maximum                                     | 690 V              |
| • at AC-3e rated value maximum                                    | 690 V              |
| operational current                                               |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value       | 50 A               |
| • at AC-1                                                         |                    |
| — up to 690 V at ambient temperature 40 °C rated value            | 50 A               |
| — up to 690 V at ambient temperature 60 °C rated value            | 42 A               |
| • at AC-3                                                         |                    |
| — at 400 V rated value                                            | 32 A               |
| — at 500 V rated value                                            | 32 A               |
| — at 690 V rated value                                            | 21 A               |
| • at AC-3e                                                        |                    |
| — at 400 V rated value                                            | 32 A               |
| — at 500 V rated value                                            | 32 A               |
| — at 690 V rated value                                            | 21 A               |
| • at AC-4 at 400 V rated value                                    | 22 A               |
| • at AC-5a up to 690 V rated value                                | 44 A               |
| • at AC-5b up to 400 V rated value                                | 26.5 A             |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=20 rated value             | 30.8 A             |
| — up to 400 V for current peak value n=20 rated value             | 30.8 A             |
| — up to 500 V for current peak value n=20 rated value             | 27 A               |
| — up to 690 V for current peak value n=20 rated value             | 21 A               |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=30 rated value             | 20.5 A             |
| — up to 400 V for current peak value n=30 rated value             | 20.5 A             |
| — up to 500 V for current peak value n=30 rated value             | 18 A               |
| — up to 690 V for current peak value n=30 rated value             | 18 A               |
| minimum cross-section in main circuit at maximum AC-1 rated value | 10 mm <sup>2</sup> |
| operational current for approx. 200000 operating cycles at AC-4   |                    |
| • at 400 V rated value                                            | 12 A               |
| • at 690 V rated value                                            | 12 A               |
| operational current                                               |                    |
| • at 1 current path at DC-1                                       |                    |
| — at 24 V rated value                                             | 35 A               |
| — at 60 V rated value                                             | 20 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             |
| • with 2 current paths in series at DC-1                          |                    |
| — at 24 V rated value                                             | 35 A               |
| — at 60 V rated value                                             | 35 A               |

|                                                                         |                                                           |
|-------------------------------------------------------------------------|-----------------------------------------------------------|
| — at 110 V rated value                                                  | 35 A                                                      |
| — at 220 V rated value                                                  | 5 A                                                       |
| — at 440 V rated value                                                  | 1 A                                                       |
| — at 600 V rated value                                                  | 0.8 A                                                     |
| ● with 3 current paths in series at DC-1                                |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 60 V rated value                                                   | 35 A                                                      |
| — at 110 V rated value                                                  | 35 A                                                      |
| — at 220 V rated value                                                  | 35 A                                                      |
| — at 440 V rated value                                                  | 2.9 A                                                     |
| — at 600 V rated value                                                  | 1.4 A                                                     |
| ● at 1 current path at DC-3 at DC-5                                     |                                                           |
| — at 24 V rated value                                                   | 20 A                                                      |
| — at 60 V rated value                                                   | 5 A                                                       |
| — at 220 V rated value                                                  | 1 A                                                       |
| — at 440 V rated value                                                  | 0.09 A                                                    |
| — at 600 V rated value                                                  | 0.06 A                                                    |
| ● with 2 current paths in series at DC-3 at DC-5                        |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 60 V rated value                                                   | 35 A                                                      |
| — at 110 V rated value                                                  | 15 A                                                      |
| — at 220 V rated value                                                  | 3 A                                                       |
| — at 440 V rated value                                                  | 0.27 A                                                    |
| — at 600 V rated value                                                  | 0.16 A                                                    |
| ● with 3 current paths in series at DC-3 at DC-5                        |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 60 V rated value                                                   | 35 A                                                      |
| — at 110 V rated value                                                  | 35 A                                                      |
| — at 220 V rated value                                                  | 10 A                                                      |
| — at 440 V rated value                                                  | 0.6 A                                                     |
| — at 600 V rated value                                                  | 0.6 A                                                     |
| <b>operating power</b>                                                  |                                                           |
| ● at AC-3                                                               |                                                           |
| — at 230 V rated value                                                  | 7.5 kW                                                    |
| — at 400 V rated value                                                  | 15 kW                                                     |
| — at 500 V rated value                                                  | 15 kW                                                     |
| — at 690 V rated value                                                  | 18.5 kW                                                   |
| ● at AC-3e                                                              |                                                           |
| — at 230 V rated value                                                  | 7.5 kW                                                    |
| — at 400 V rated value                                                  | 15 kW                                                     |
| — at 500 V rated value                                                  | 15 kW                                                     |
| — at 690 V rated value                                                  | 18.5 kW                                                   |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>      |                                                           |
| ● at 400 V rated value                                                  | 6 kW                                                      |
| ● at 690 V rated value                                                  | 10.3 kW                                                   |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| ● up to 230 V for current peak value n=20 rated value                   | 12.2 kVA                                                  |
| ● up to 400 V for current peak value n=20 rated value                   | 21.3 kVA                                                  |
| ● up to 500 V for current peak value n=20 rated value                   | 23.3 kVA                                                  |
| ● up to 690 V for current peak value n=20 rated value                   | 25 kVA                                                    |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| ● up to 230 V for current peak value n=30 rated value                   | 8.1 kVA                                                   |
| ● up to 400 V for current peak value n=30 rated value                   | 14.2 kVA                                                  |
| ● up to 500 V for current peak value n=30 rated value                   | 15.5 kVA                                                  |
| ● up to 690 V for current peak value n=30 rated value                   | 21.5 kVA                                                  |
| <b>short-time withstand current in cold operating state up to 40 °C</b> |                                                           |
| ● limited to 1 s switching at zero current maximum                      | 499 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> | 341 A; Use minimum cross-section acc. to AC-1 rated value<br>260 A; Use minimum cross-section acc. to AC-1 rated value<br>199 A; Use minimum cross-section acc. to AC-1 rated value<br>162 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> </ul>                                                                                                                                                                                                                                   | 5 000 1/h                                                                                                                                                                                                                                        |
| <b>operating frequency</b>                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> </ul>                                                                                                                                                                                                                         | 1 000 1/h                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at AC-2 maximum</li> </ul>                                                                                                                                                                                                                         | 750 1/h                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                                                                                                                                                                                                                         | 750 1/h                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at AC-3e</li> <li>— maximum</li> </ul>                                                                                                                                                                                                             | 750 1/h                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at AC-4 maximum</li> </ul>                                                                                                                                                                                                                         | 250 1/h                                                                                                                                                                                                                                          |
| <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 rated value</li> </ul>                                                                                                                                                                                                                    | 230 V                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                    | 230 V                                                                                                                                                                                                                                            |
| <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> </ul>                                                                                                                                                                                                                                | 0.8 ... 1.1                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                | 0.85 ... 1.1                                                                                                                                                                                                                                     |
| <b>apparent pick-up power of magnet coil at AC</b>                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                | 81 VA                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                | 79 VA                                                                                                                                                                                                                                            |
| <b>inductive power factor with closing power of the coil</b>                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                | 0.72                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                | 0.74                                                                                                                                                                                                                                             |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                | 10.5 VA                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                | 8.5 VA                                                                                                                                                                                                                                           |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                | 0.25                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                | 0.28                                                                                                                                                                                                                                             |
| <b>closing delay</b>                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                   | 8 ... 40 ms                                                                                                                                                                                                                                      |
| <b>opening delay</b>                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                   | 4 ... 16 ms                                                                                                                                                                                                                                      |
| <b>arcing time</b>                                                                                                                                                                                                                                                                          | 10 ... 10 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                                                                                                                                                                                                                          | 1                                                                                                                                                                                                                                                |
| number of NO contacts for auxiliary contacts instantaneous contact                                                                                                                                                                                                                          | 1                                                                                                                                                                                                                                                |
| operational current at AC-12 maximum                                                                                                                                                                                                                                                        | 10 A                                                                                                                                                                                                                                             |
| <b>operational current at AC-15</b>                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 230 V rated value</li> </ul>                                                                                                                                                                                                                    | 10 A                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>                                                                                                                                                                                                                    | 3 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>                                                                                                                                                                                                                    | 2 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                    | 1 A                                                                                                                                                                                                                                              |
| <b>operational current at DC-12</b>                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>                                                                                                                                                                                                                     | 10 A                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> </ul>                                                                                                                                                                                                                     | 6 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 60 V rated value</li> </ul>                                                                                                                                                                                                                     | 6 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> </ul>                                                                                                                                                                                                                    | 3 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 125 V rated value</li> </ul>                                                                                                                                                                                                                    | 2 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> </ul>                                                                                                                                                                                                                    | 1 A                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                    | 0.15 A                                                                                                                                                                                                                                           |
| <b>operational current at DC-13</b>                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |

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| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                 | 10 A<br>2 A<br>2 A<br>1 A<br>0.9 A<br>0.3 A<br>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 27 A<br>27 A                                                                                                                                                                               |
| <b>yielded mechanical performance [hp]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>                                                                                                                                 | 2 hp<br>5 hp<br><br>10 hp<br>10 hp<br>20 hp<br>25 hp                                                                                                                                       |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A600 / P600                                                                                                                                                                                |
| <b>Category Control Number (CCN)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | E31519 (NLDX, NLDX7)                                                                                                                                                                       |
| <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> <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of coordination 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                                | gG: 125 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)<br>gG: 50 A (690 V, 100 kA), aM: 25 A (690 V, 100 kA), BS88: 50 A (415 V, 80 kA)<br>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 85 mm                                                                                                                                                                                      |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 45 mm                                                                                                                                                                                      |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 97 mm                                                                                                                                                                                      |
| <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> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                             | screw-type terminals<br>screw-type terminals                                                                                                                                               |

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| <ul style="list-style-type: none"> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> </ul>                                                                                                                                                                                                 | 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</li> <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 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )<br>2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )<br>2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup><br>2x (16 ... 12), 2x (14 ... 8) |
| <b>connectable conductor cross-section for main contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> </ul>                                                                                                                    | 1 ... 10 mm <sup>2</sup><br>1 ... 10 mm <sup>2</sup><br>1 ... 10 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>                                                                                                                                                                                                                                  | 16 ... 8                                                                                                                                                                                                                                                           |
| <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                                                                                                                                                                                                                                                             |
| <b>Electrical Safety</b>                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                    |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                                                                                                                                                                                    | IP20                                                                                                                                                                                                                                                               |
| <b>touch protection on the front according to IEC 60529</b>                                                                                                                                                                                                                                                       | finger-safe, for vertical contact from the front                                                                                                                                                                                                                   |
| <b>Approvals Certificates</b>                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                    |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                    |


[KC](#)

|                          |     |                   |                      |
|--------------------------|-----|-------------------|----------------------|
| General Product Approval | EMV | Test Certificates | Maritime application |
|--------------------------|-----|-------------------|----------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application

other



[Miscellaneous](#)



other

Railway

Environment

[Confirmation](#)

[Confirmation](#)

[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=3RT2027-1AL20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1AL20>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2027-1AL20&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2027-1AL20&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1AL20>

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>)







last modified:

11/27/2025 