



power contactor, AC-3 12 A, 5.5 kW / 400 V 1 NC, 24 V DC 3-pole, Size S00 screw terminal

|                                                                                                  |                            |
|--------------------------------------------------------------------------------------------------|----------------------------|
| product brand name                                                                               | SIRIUS                     |
| product designation                                                                              | Power contactor            |
| product type designation                                                                         | 3RT2                       |
| <b>General technical data</b>                                                                    |                            |
| size of contactor                                                                                | S00                        |
| 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                       | 3.6 W                      |
| • per pole                                                                                       | 1.2 W                      |
| power loss [W] for rated value of the current without load current share typical                 | 4 W                        |
| 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 safe isolation between coil and main contacts acc. to EN 60947-1 | 400 V                      |
| shock resistance at rectangular impulse                                                          |                            |
| • at DC                                                                                          | 7.3g / 5 ms, 4.7g / 10 ms  |
| shock resistance with sine pulse                                                                 |                            |
| • at DC                                                                                          | 11,4g / 5 ms, 7,3g / 10 ms |
| mechanical service life (switching cycles)                                                       |                            |
| • of contactor typical                                                                           | 30 000 000                 |
| • 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 acc. to IEC 81346-2                                                               | Q                          |
| Substance Prohibitance (Date)                                                                    | 01.10.2009                 |
| <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 acc. to IEC 60068-2-30                                                | 95 %                       |

|                                                                                                                                                                                                                                                                                                                                                                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>maximum</b>                                                                                                                                                                                                                                                                                                                                                     |                   |
| <b>Main circuit</b>                                                                                                                                                                                                                                                                                                                                                |                   |
| <b>number of poles for main current circuit</b>                                                                                                                                                                                                                                                                                                                    | 3                 |
| <b>number of NO contacts for main contacts</b>                                                                                                                                                                                                                                                                                                                     | 3                 |
| operating voltage at AC-3 rated value maximum                                                                                                                                                                                                                                                                                                                      | 690 V             |
| <b>operational current</b>                                                                                                                                                                                                                                                                                                                                         |                   |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>                                                                                                                                                                                                                                                      | 22 A              |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul> </li> </ul>                                                                                                                              | 22 A              |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                              | 12 A              |
| <ul style="list-style-type: none"> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                   | 9.2 A             |
| <ul style="list-style-type: none"> <li>• at AC-5a up to 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                               | 6.7 A             |
| <ul style="list-style-type: none"> <li>• at AC-5b up to 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                               | 8.5 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=20 rated value</li> <li>— up to 400 V for current peak value n=20 rated value</li> <li>— up to 500 V for current peak value n=20 rated value</li> <li>— up to 690 V for current peak value n=20 rated value</li> </ul> </li> </ul> | 19.4 A            |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 9.9 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 7.2 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 7.2 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 7.2 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 6.7 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 4.8 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 4.8 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 4.8 A             |
| <ul style="list-style-type: none"> <li>• at AC-6a <ul style="list-style-type: none"> <li>— up to 230 V for current peak value n=30 rated value</li> <li>— up to 400 V for current peak value n=30 rated value</li> <li>— up to 500 V for current peak value n=30 rated value</li> <li>— up to 690 V for current peak value n=30 rated value</li> </ul> </li> </ul> | 4.8 A             |
| minimum cross-section in main circuit at maximum AC-1 rated value                                                                                                                                                                                                                                                                                                  | 4 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                             |                   |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                           | 4.1 A             |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                           | 3.3 A             |
| <b>operational current</b>                                                                                                                                                                                                                                                                                                                                         |                   |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                             | 20 A              |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                             | 2.1 A             |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                             | 0.8 A             |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                             | 0.6 A             |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                             | 0.6 A             |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 20 A              |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 12 A              |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 1.6 A             |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 0.8 A             |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 0.7 A             |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 20 A              |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 20 A              |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 20 A              |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 1.3 A             |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                | 1 A               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>at 1 current path at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• <b>with 2 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• <b>with 3 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul> | 20 A<br>0.1 A<br><br>20 A<br>0.35 A<br><br>20 A<br>20 A<br>1.5 A<br>0.2 A<br>0.2 A                                                                                                                                                                                                                         |
| <b>operating power</b> <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              | 3 kW<br>5.5 kW<br>5.5 kW<br>5.5 kW                                                                                                                                                                                                                                                                         |
| <b>operating power for approx. 200000 operating cycles at AC-4</b> <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2 kW<br>2.5 kW                                                                                                                                                                                                                                                                                             |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=20 rated value</li> <li>• up to 400 V for current peak value n=20 rated value</li> <li>• up to 500 V for current peak value n=20 rated value</li> <li>• up to 690 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                             | 2.8 kV·A<br>4.9 kV·A<br>6.2 kV·A<br>8 kV·A                                                                                                                                                                                                                                                                 |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=30 rated value</li> <li>• up to 400 V for current peak value n=30 rated value</li> <li>• up to 500 V for current peak value n=30 rated value</li> <li>• up to 690 V for current peak value n=30 rated value</li> </ul>                                                                                                                                                                                                                                                                                                             | 1.9 kV·A<br>3.3 kV·A<br>4.1 kV·A<br>5.7 kV·A                                                                                                                                                                                                                                                               |
| <b>short-time withstand current in cold operating state up to 40 °C</b> <ul style="list-style-type: none"> <li>• limited to 1 s switching at zero current maximum</li> <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>                                                                                                                                                                                                                           | 200 A; Use minimum cross-section acc. to AC-1 rated value<br>123 A; Use minimum cross-section acc. to AC-1 rated value<br>96 A; Use minimum cross-section acc. to AC-1 rated value<br>74 A; Use minimum cross-section acc. to AC-1 rated value<br>61 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 DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 000 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-4 maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1 000 1/h<br>750 1/h<br>750 1/h<br>250 1/h                                                                                                                                                                                                                                                                 |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                            |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DC                                                                                                                                                                                                                                                                                                         |
| <b>control supply voltage at DC</b> <ul style="list-style-type: none"> <li>• rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 24 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>closing power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4 W                                                                                                                                                                                                                                                                                                        |
| <b>holding power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4 W                                                                                                                                                                                                                                                                                                        |
| <b>closing delay</b> <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 30 ... 100 ms                                                                                                                                                                                                                                                                                              |
| <b>opening delay</b> <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7 ... 13 ms                                                                                                                                                                                                                                                                                                |
| <b>arcing time</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10 ... 15 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                                                                                                                                    |
| operational current at AC-12 maximum                               | 10 A                                                                                                                                 |
| <b>operational current at AC-15</b>                                |                                                                                                                                      |
| • at 230 V rated value                                             | 10 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                                              | 10 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                                             | 11 A                                                                                                                                 |
| • at 600 V rated value                                             | 11 A                                                                                                                                 |
| <b>yielded mechanical performance [hp]</b>                         |                                                                                                                                      |
| • for single-phase AC motor                                        |                                                                                                                                      |
| — at 110/120 V rated value                                         | 0.5 hp                                                                                                                               |
| — at 230 V rated value                                             | 2 hp                                                                                                                                 |
| • for 3-phase AC motor                                             |                                                                                                                                      |
| — at 200/208 V rated value                                         | 3 hp                                                                                                                                 |
| — at 220/230 V rated value                                         | 3 hp                                                                                                                                 |
| — at 460/480 V rated value                                         | 7.5 hp                                                                                                                               |
| — at 575/600 V rated value                                         | 10 hp                                                                                                                                |
| <b>contact rating of auxiliary contacts according to UL</b>        | A600 / Q600                                                                                                                          |
| <b>Short-circuit protection</b>                                    |                                                                                                                                      |
| <b>design of the fuse link</b>                                     |                                                                                                                                      |
| • for short-circuit protection of the main circuit                 |                                                                                                                                      |
| — with type of coordination 1 required                             | gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)                                                                    |
| — with type of assignment 2 required                               | gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)                                                                  |
| • 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 |
| <b>fastening method</b>                                            | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                               |
| • side-by-side mounting                                            | Yes                                                                                                                                  |
| <b>height</b>                                                      | 58 mm                                                                                                                                |
| <b>width</b>                                                       | 45 mm                                                                                                                                |
| <b>depth</b>                                                       | 73 mm                                                                                                                                |
| <b>required spacing</b>                                            |                                                                                                                                      |
| • with side-by-side mounting                                       |                                                                                                                                      |
| — forwards                                                         | 10 mm                                                                                                                                |

|                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— upwards</li> <li>— downwards</li> <li>— at the side</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>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</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG cables for main contacts</li> </ul>                                                                                                                                                              | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br>2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 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), 2x 12 |
| <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>                                                                                                                                                                                                                                                                                         | 0.5 ... 4 mm <sup>2</sup><br>0.5 ... 4 mm <sup>2</sup><br>0.5 ... 2.5 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 ... 4 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>• at 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> ), 2x 4 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), 2x 12                                                                                                |
| <b>AWG number as coded connectable conductor cross section</b>                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary contacts</li> </ul>                                                                                                                                                                                                                                                                                                                   | 20 ... 12<br>20 ... 12                                                                                                                                                                                                                                                                                       |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                              |
| B10 value with high demand rate acc. to SN 31920                                                                                                                                                                                                                                                                                                                                                                          | 1 000 000                                                                                                                                                                                                                                                                                                    |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                                                                                                                               | 40 %<br>73 %                                                                                                                                                                                                                                                                                                 |
| failure rate [FIT] with low demand rate acc. to SN 31920                                                                                                                                                                                                                                                                                                                                                                  | 100 FIT                                                                                                                                                                                                                                                                                                      |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b>                                                                                                                                                                                                                                                                                                                                                 | 20 y                                                                                                                                                                                                                                                                                                         |
| <b>protection class IP on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                                                                                                                                 | IP20                                                                                                                                                                                                                                                                                                         |
| <b>touch protection on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                                                                                                                                    | finger-safe, for vertical contact from the front                                                                                                                                                                                                                                                             |
| <b>suitability for use</b>                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• safety-related switching OFF</li> </ul>                                                                                                                                                                                                                                                                                                                                          | Yes                                                                                                                                                                                                                                                                                                          |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                              |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                              |



[Confirmation](#)



[KC](#)



| EMC | Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates |
|-----|---------------------------------------|---------------------------|-------------------|
|-----|---------------------------------------|---------------------------|-------------------|



[Type Examination Certificate](#)

[UK Declaration of Conformity](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

#### Marine / Shipping



| Marine / Shipping | other | Dangerous Good |
|-------------------|-------|----------------|
|-------------------|-------|----------------|



[Confirmation](#)



[Transport Information](#)

#### Further information

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=3RT2017-1BB42>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1BB42>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BB42>

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

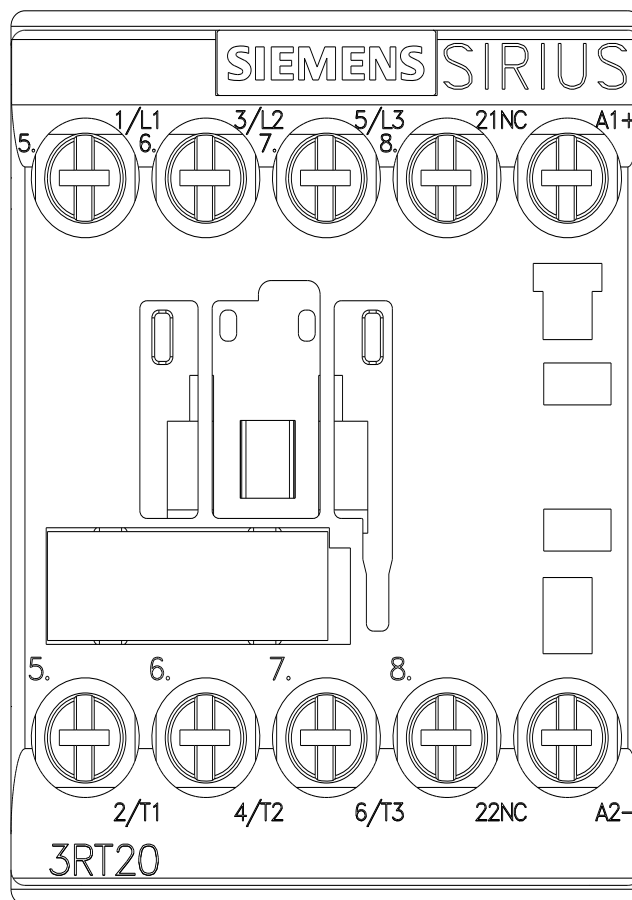
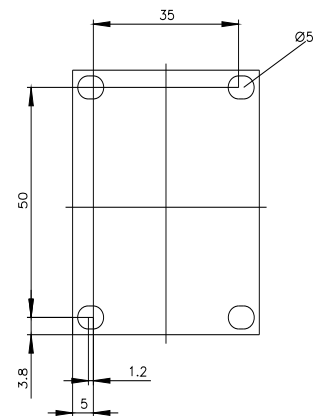
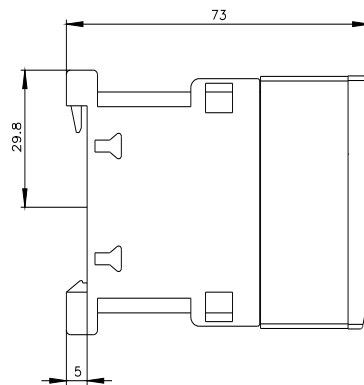
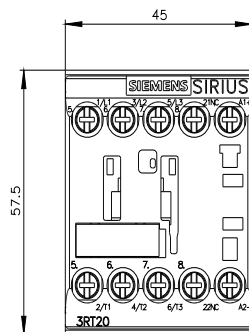
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2017-1BB42&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2017-1BB42&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BB42/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-1BB42&objecttype=14&gridview=view1>





12/23/2021 