



power contactor, AC-3e/AC-3, 51 A, 22 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S2, removable auxiliary switch

|                                                                                                              |                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                           | SIRIUS                      |
| product designation                                                                                          | Power contactor             |
| product type designation                                                                                     | 3RT2                        |
| <b>General technical data</b>                                                                                |                             |
| size of contactor                                                                                            | S2                          |
| product extension                                                                                            |                             |
| • function module for communication                                                                          | No                          |
| • auxiliary switch                                                                                           | No                          |
| power loss [W] for rated value of the current                                                                |                             |
| • at AC in hot operating state                                                                               | 12 W                        |
| • at AC in hot operating state per pole                                                                      | 4 W                         |
| • without load current share typical                                                                         | 6.5 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                                                                                                      | 9.8g / 5 ms, 6.5g / 10 ms   |
| shock resistance with sine pulse                                                                             |                             |
| • at AC                                                                                                      | 15.3g / 5 ms, 10.1g / 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)                                                                                |                             |
| Weight                                                                                                       | 1.045 kg                    |
| <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 maximum                                               | 95 %                        |

| Environmental footprint                                                |                    |
|------------------------------------------------------------------------|--------------------|
| Environmental Product Declaration(EPD)                                 | Yes                |
| Global Warming Potential [CO2 eq] total                                | 236 kg             |
| Global Warming Potential [CO2 eq] during manufacturing                 | 4.11 kg            |
| Global Warming Potential [CO2 eq] during operation                     | 233 kg             |
| Global Warming Potential [CO2 eq] after end of life                    | -0.635 kg          |
| Main circuit                                                           |                    |
| <b>number of poles for main current circuit</b>                        | 3                  |
| <b>number of NO contacts for main contacts</b>                         | 3                  |
| <b>operating voltage</b>                                               |                    |
| • at AC-3 rated value maximum                                          | 690 V              |
| • at AC-3e rated value maximum                                         | 690 V              |
| <b>operational current</b>                                             |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 70 A               |
| • at AC-1                                                              |                    |
| — up to 690 V at ambient temperature 40 °C rated value                 | 70 A               |
| — up to 690 V at ambient temperature 60 °C rated value                 | 60 A               |
| • at AC-3                                                              |                    |
| — at 400 V rated value                                                 | 51 A               |
| — at 500 V rated value                                                 | 51 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-3e                                                             |                    |
| — at 400 V rated value                                                 | 51 A               |
| — at 500 V rated value                                                 | 51 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-4 at 400 V rated value                                         | 41 A               |
| • at AC-5a up to 690 V rated value                                     | 61.6 A             |
| • at AC-5b up to 400 V rated value                                     | 41.5 A             |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 400 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 500 V for current peak value n=20 rated value                  | 43.2 A             |
| — up to 690 V for current peak value n=20 rated value                  | 24 A               |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 400 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 500 V for current peak value n=30 rated value                  | 28.8 A             |
| — up to 690 V for current peak value n=30 rated value                  | 24 A               |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 25 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                    |
| • at 400 V rated value                                                 | 24 A               |
| • at 690 V rated value                                                 | 20 A               |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 55 A               |
| — at 60 V rated value                                                  | 23 A               |
| — at 110 V rated value                                                 | 4.5 A              |
| — at 220 V rated value                                                 | 1 A                |
| — at 440 V rated value                                                 | 0.4 A              |
| — at 600 V rated value                                                 | 0.25 A             |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 55 A               |
| — at 60 V rated value                                                  | 45 A               |
| — at 110 V rated value                                                 | 45 A               |
| — at 220 V rated value                                                 | 5 A                |
| — at 440 V rated value                                                 | 1 A                |
| — at 600 V rated value                                                 | 0.8 A              |

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| <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 60 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> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 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> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 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> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 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> | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.9 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.4 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.1 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.06 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.27 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.16 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.6 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.35 A                                                    |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |
| • at AC-2 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 22 kW                                                     |
| • at AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                           |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15 kW                                                     |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                     |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30 kW                                                     |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                     |
| • at AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                           |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15 kW                                                     |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                     |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30 kW                                                     |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                     |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |
| • at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12.6 kW                                                   |
| • at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 18.2 kW                                                   |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |
| • up to 230 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 17.2 kVA                                                  |
| • up to 400 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 29.9 kVA                                                  |
| • up to 500 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 37.4 kVA                                                  |
| • up to 690 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28.6 kVA                                                  |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |
| • up to 230 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 11.4 kVA                                                  |
| • up to 400 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 19.9 kVA                                                  |
| • up to 500 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 24.9 kVA                                                  |
| • up to 690 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28.6 kVA                                                  |
| <b>short-time withstand current in cold operating state up to 40 °C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |
| • limited to 1 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 937 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 5 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 697 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 10 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 468 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 30 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 282 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 60 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 229 A; Use minimum cross-section acc. to AC-1 rated value |
| <b>no-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |

|                                                                                       |                  |
|---------------------------------------------------------------------------------------|------------------|
| <ul style="list-style-type: none"> <li>• at AC</li> </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>                   | 600 1/h          |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                   | 800 1/h          |
| <ul style="list-style-type: none"> <li>• at AC-3e maximum</li> </ul>                  | 800 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>                          | 210 VA           |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                          | 188 VA           |
| <b>inductive power factor with closing power of the coil</b>                          |                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                          | 0.69             |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                          | 0.65             |
| <b>apparent holding power of magnet coil at AC</b>                                    |                  |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                          | 17.2 VA          |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                          | 16.5 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>                          | 0.36             |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                          | 0.39             |
| <b>closing delay</b>                                                                  |                  |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                             | 10 ... 80 ms     |
| <b>opening delay</b>                                                                  |                  |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                             | 10 ... 18 ms     |
| <b>arcing time</b>                                                                    | 10 ... 20 ms     |
| <b>control version of the switch operating mechanism</b>                              | Standard A1 - A2 |
| <b>Auxiliary circuit</b>                                                              |                  |
| number of NC contacts for auxiliary contacts instantaneous contact                    | 2                |
| number of NO contacts for auxiliary contacts instantaneous contact                    | 2                |
| operational current at AC-12 maximum                                                  | 10 A             |
| <b>operational current at AC-15</b>                                                   |                  |
| <ul style="list-style-type: none"> <li>• at 230 V rated value</li> </ul>              | 6 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>                                                   |                  |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>               | 6 A              |
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> </ul>               | 2 A              |
| <ul style="list-style-type: none"> <li>• at 60 V rated value</li> </ul>               | 2 A              |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> </ul>              | 1 A              |
| <ul style="list-style-type: none"> <li>• at 125 V rated value</li> </ul>              | 0.9 A            |
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> </ul>              | 0.3 A            |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>              | 0.1 A            |

|                                                                   |                                                                                                                                      |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>contact reliability of auxiliary contacts</b>                  | 1 faulty switching per 100 million (17 V, 1 mA)                                                                                      |
| <b>UL/CSA ratings</b>                                             |                                                                                                                                      |
| <b>full-load current (FLA) for 3-phase AC motor</b>               |                                                                                                                                      |
| • at 480 V rated value                                            | 52 A                                                                                                                                 |
| • at 600 V rated value                                            | 52 A                                                                                                                                 |
| <b>yielded mechanical performance [hp]</b>                        |                                                                                                                                      |
| • for single-phase AC motor                                       |                                                                                                                                      |
| — at 110/120 V rated value                                        | 3 hp                                                                                                                                 |
| — at 230 V rated value                                            | 10 hp                                                                                                                                |
| • for 3-phase AC motor                                            |                                                                                                                                      |
| — at 200/208 V rated value                                        | 15 hp                                                                                                                                |
| — at 220/230 V rated value                                        | 15 hp                                                                                                                                |
| — at 460/480 V rated value                                        | 40 hp                                                                                                                                |
| — at 575/600 V rated value                                        | 50 hp                                                                                                                                |
| <b>contact rating of auxiliary contacts according to UL</b>       | A600 / Q600                                                                                                                          |
| <b>Short-circuit protection</b>                                   |                                                                                                                                      |
| <b>design of the fuse link</b>                                    |                                                                                                                                      |
| • for short-circuit protection of the main circuit                |                                                                                                                                      |
| — with type of coordination 1 required                            | gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)                                                      |
| — with type of assignment 2 required                              | gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A (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 DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                     | 114 mm                                                                                                                               |
| <b>width</b>                                                      | 55 mm                                                                                                                                |
| <b>depth</b>                                                      | 174 mm                                                                                                                               |
| <b>required spacing</b>                                           |                                                                                                                                      |
| • with side-by-side mounting                                      |                                                                                                                                      |
| — forwards                                                        | 10 mm                                                                                                                                |
| — upwards                                                         | 10 mm                                                                                                                                |
| — downwards                                                       | 10 mm                                                                                                                                |
| — at the side                                                     | 0 mm                                                                                                                                 |
| • for grounded parts                                              |                                                                                                                                      |
| — forwards                                                        | 10 mm                                                                                                                                |
| — upwards                                                         | 10 mm                                                                                                                                |
| — at the side                                                     | 6 mm                                                                                                                                 |
| — downwards                                                       | 10 mm                                                                                                                                |
| • for live parts                                                  |                                                                                                                                      |
| — forwards                                                        | 10 mm                                                                                                                                |
| — upwards                                                         | 10 mm                                                                                                                                |
| — downwards                                                       | 10 mm                                                                                                                                |
| — at the side                                                     | 6 mm                                                                                                                                 |
| <b>Connections/ Terminals</b>                                     |                                                                                                                                      |
| <b>type of electrical connection</b>                              |                                                                                                                                      |
| • for main current circuit                                        | screw-type terminals                                                                                                                 |
| • for auxiliary and control circuit                               | screw-type terminals                                                                                                                 |
| • at contactor for auxiliary contacts                             | Screw-type terminals                                                                                                                 |
| • of magnet coil                                                  | Screw-type terminals                                                                                                                 |
| <b>type of connectable conductor cross-sections</b>               |                                                                                                                                      |
| • for main contacts                                               |                                                                                                                                      |
| — solid or stranded                                               | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)                                                                                                 |
| — finely stranded with core end processing                        | 2x (1 ... 25 mm²), 1x (1 ... 35 mm²)                                                                                                 |
| • for AWG cables for main contacts                                | 2x (18 ... 2), 1x (18 ... 1)                                                                                                         |
| <b>connectable conductor cross-section for main contacts</b>      |                                                                                                                                      |
| • finely stranded with core end processing                        | 1 ... 35 mm²                                                                                                                         |
| <b>connectable conductor cross-section for auxiliary contacts</b> |                                                                                                                                      |
| • solid or stranded                                               | 0.5 ... 2.5 mm²                                                                                                                      |
| • finely stranded with core end processing                        | 0.5 ... 2.5 mm²                                                                                                                      |

|                                                                                                                                                                                                                                                                                                            |                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <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 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14) |
| <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>                                                                                                                                     | 18 ... 1<br>20 ... 14                                                                                                        |

#### Safety related data

|                                                                                                                                                                                                                                 |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <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          |

#### ISO 13849

|                                                            |     |
|------------------------------------------------------------|-----|
| <b>device type according to ISO 13849-1</b>                | 3   |
| <b>overdimensioning according to ISO 13849-2 necessary</b> | Yes |

#### IEC 61508

|                                                    |        |
|----------------------------------------------------|--------|
| <b>safety device type according to IEC 61508-2</b> | Type A |
|----------------------------------------------------|--------|

#### Electrical Safety

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| <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 |

#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



[KC](#)

| General Product Approval | EMV | Functional Safety | Test Certificates | Marine / Shipping |
|--------------------------|-----|-------------------|-------------------|-------------------|
|--------------------------|-----|-------------------|-------------------|-------------------|



[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| Marine / Shipping | other |
|-------------------|-------|
|-------------------|-------|



[Confirmation](#)

| other | Railway | Dangerous goods | Environment |
|-------|---------|-----------------|-------------|
|-------|---------|-----------------|-------------|

[Confirmation](#)

[Special Test Certificate](#)

[Transport Information](#)



[Environmental Confirmations](#)

## Further information

### Information on the packaging

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

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

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

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2036-1AL24>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2036-1AL24>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1AL24>

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

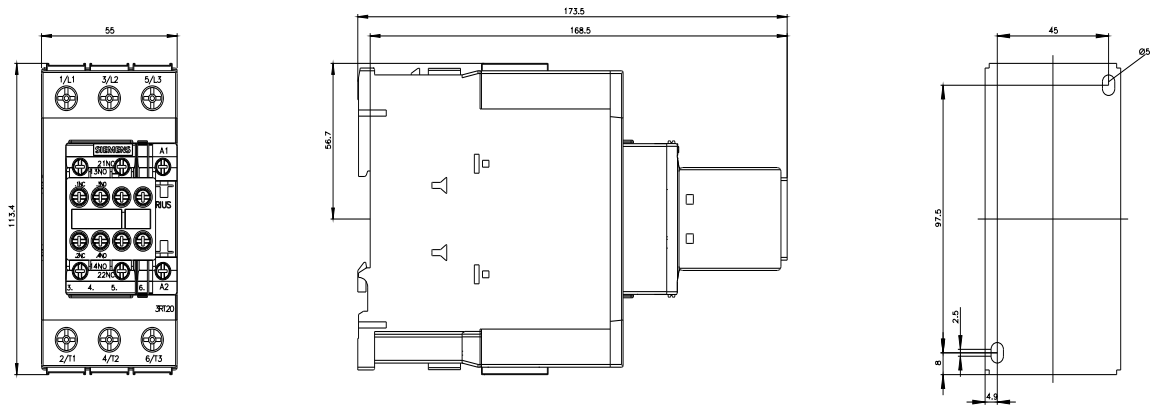
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2036-1AL24&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2036-1AL24&lang=en)

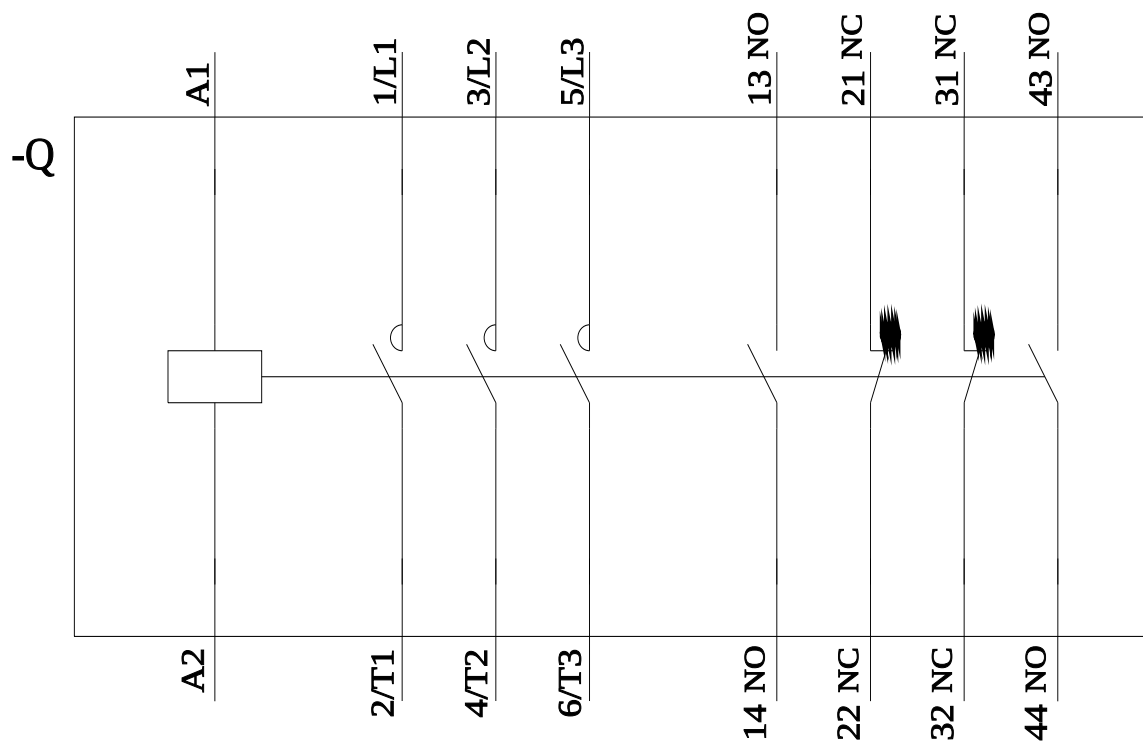
### Characteristic: Tripping characteristics, $I^2t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1AL24/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2036-1AL24&objecttype=14&gridview=view1>





last modified:

