



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 24 V DC, with plugged-in varistor, auxiliary contacts: 2 NO + 2 NC, spring-loaded terminal, size: S0, captive auxiliary switch

|                                                                                                              |                                                                                                      |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| product brand name                                                                                           | SIRIUS                                                                                               |
| product designation                                                                                          | Power contactor                                                                                      |
| product type designation                                                                                     | 3RT2                                                                                                 |
| General technical data                                                                                       |                                                                                                      |
| size of contactor                                                                                            | S0                                                                                                   |
| 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                                                                               | 0.9 W                                                                                                |
| • at AC in hot operating state per pole                                                                      | 0.3 W                                                                                                |
| • without load current share typical                                                                         | 5.9 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 DC                                                                                                      | 10g / 5 ms, 7,5g / 10 ms                                                                             |
| shock resistance with sine pulse                                                                             |                                                                                                      |
| • at DC                                                                                                      | 15g / 5 ms, 10g / 10 ms                                                                              |
| mechanical service life (operating cycles)                                                                   |                                                                                                      |
| • of contactor typical                                                                                       | 10 000 000                                                                                           |
| • of the contactor with added electronically optimized auxiliary switch block typical                        | 5 000 000                                                                                            |
| • of the contactor with added auxiliary switch block typical                                                 | 10 000 000                                                                                           |
| reference code according to IEC 81346-2                                                                      | Q                                                                                                    |
| Substance Prohibitance (Date)                                                                                | 10/01/2009                                                                                           |
| SVHC substance name                                                                                          | Lead - 7439-92-1<br>2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) - 3147-75-9 |
| Net Weight                                                                                                   | 0.694 kg                                                                                             |
| Ambient conditions                                                                                           |                                                                                                      |
| installation altitude at height above sea level maximum                                                      | 2 000 m                                                                                              |
| ambient temperature                                                                                          |                                                                                                      |
| • during operation                                                                                           | -25 ... +60 °C                                                                                       |

|                                                                        |                    |
|------------------------------------------------------------------------|--------------------|
| • during storage                                                       | -55 ... +80 °C     |
| <b>relative humidity minimum</b>                                       | 10 %               |
| <b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>  | 95 %               |
| <b>Main circuit</b>                                                    |                    |
| <b>number of poles for main current circuit</b>                        | 3                  |
| <b>number of NO contacts for main contacts</b>                         | 3                  |
| <b>number of NC contacts for main contacts</b>                         | 0                  |
| <b>operating voltage</b>                                               |                    |
| • at AC-3 rated value maximum                                          | 690 V              |
| • at AC-3e rated value maximum                                         | 690 V              |
| <b>operational current</b>                                             |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 40 A               |
| • at AC-1                                                              |                    |
| — up to 690 V at ambient temperature 40 °C rated value                 | 40 A               |
| — up to 690 V at ambient temperature 60 °C rated value                 | 35 A               |
| • at AC-3                                                              |                    |
| — at 400 V rated value                                                 | 12 A               |
| — at 500 V rated value                                                 | 12 A               |
| — at 690 V rated value                                                 | 9 A                |
| • at AC-3e                                                             |                    |
| — at 400 V rated value                                                 | 12 A               |
| — at 500 V rated value                                                 | 12 A               |
| — at 690 V rated value                                                 | 9 A                |
| • at AC-4 at 400 V rated value                                         | 12.5 A             |
| • at AC-5a up to 690 V rated value                                     | 35.2 A             |
| • at AC-5b up to 400 V rated value                                     | 9.9 A              |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=20 rated value                  | 11.4 A             |
| — up to 400 V for current peak value n=20 rated value                  | 11.4 A             |
| — up to 500 V for current peak value n=20 rated value                  | 11.3 A             |
| — up to 690 V for current peak value n=20 rated value                  | 9 A                |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 7.6 A              |
| — up to 400 V for current peak value n=30 rated value                  | 7.6 A              |
| — up to 500 V for current peak value n=30 rated value                  | 7.6 A              |
| — up to 690 V for current peak value n=30 rated value                  | 7.6 A              |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 10 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                    |
| • at 400 V rated value                                                 | 5.5 A              |
| • at 690 V rated value                                                 | 5.5 A              |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 35 A               |
| — at 60 V rated value                                                  | 20 A               |
| — at 110 V rated value                                                 | 4.5 A              |
| — at 220 V rated value                                                 | 1 A                |
| — at 440 V rated value                                                 | 0.4 A              |
| — at 600 V rated value                                                 | 0.25 A             |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 35 A               |
| — at 60 V rated value                                                  | 35 A               |
| — at 110 V rated value                                                 | 35 A               |
| — at 220 V rated value                                                 | 5 A                |
| — at 440 V rated value                                                 | 1 A                |
| — at 600 V rated value                                                 | 0.8 A              |

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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 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 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> | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.9 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.4 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 20 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.5 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.09 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.06 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 15 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.27 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.16 A                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.6 A                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.6 A                                                     |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |
| <ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.5 kW                                                    |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3 kW                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5 kW                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5 kW                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.5 kW                                                    |
| <ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3 kW                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5 kW                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5 kW                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.5 kW                                                    |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.6 kW                                                    |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.6 kW                                                    |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |
| <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.5 kVA                                                   |
| <ul style="list-style-type: none"> <li>• up to 400 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.8 kVA                                                   |
| <ul style="list-style-type: none"> <li>• up to 500 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9.8 kVA                                                   |
| <ul style="list-style-type: none"> <li>• up to 690 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10.7 kVA                                                  |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |
| <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=30 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3 kVA                                                     |
| <ul style="list-style-type: none"> <li>• up to 400 V for current peak value n=30 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5.2 kVA                                                   |
| <ul style="list-style-type: none"> <li>• up to 500 V for current peak value n=30 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.5 kVA                                                   |
| <ul style="list-style-type: none"> <li>• up to 690 V for current peak value n=30 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9 kVA                                                     |
| <b>short-time withstand current in cold operating state up to 40 °C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |
| <ul style="list-style-type: none"> <li>• limited to 1 s switching at zero current maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 210 A; Use minimum cross-section acc. to AC-1 rated value |
| <ul style="list-style-type: none"> <li>• limited to 5 s switching at zero current maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 210 A; Use minimum cross-section acc. to AC-1 rated value |
| <ul style="list-style-type: none"> <li>• limited to 10 s switching at zero current maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 170 A; Use minimum cross-section acc. to AC-1 rated value |

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| <ul style="list-style-type: none"> <li>• limited to 30 s switching at zero current maximum</li> <li>• limited to 60 s switching at zero current maximum</li> </ul> | 126 A; Use minimum cross-section acc. to AC-1 rated value<br>105 A; Use minimum cross-section acc. to AC-1 rated value |
| <b>no-load switching frequency</b>                                                                                                                                 |                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                          | 1 500 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>                                                                                                | 1 000 1/h                                                                                                              |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                                                                                                | 1 000 1/h                                                                                                              |
| <ul style="list-style-type: none"> <li>• at AC-3e</li> <li>— maximum</li> </ul>                                                                                    | 1 000 1/h                                                                                                              |
| <ul style="list-style-type: none"> <li>• at AC-4 maximum</li> </ul>                                                                                                | 300 1/h                                                                                                                |
| <b>Control circuit/ Control</b>                                                                                                                                    |                                                                                                                        |
| <b>type of voltage of the control supply voltage</b>                                                                                                               | DC                                                                                                                     |
| <b>control supply voltage at DC rated value</b>                                                                                                                    | 24 V                                                                                                                   |
| <b>operating range factor control supply voltage rated value of magnet coil at DC</b>                                                                              |                                                                                                                        |
| <ul style="list-style-type: none"> <li>• initial value</li> </ul>                                                                                                  | 0.8                                                                                                                    |
| <ul style="list-style-type: none"> <li>• full-scale value</li> </ul>                                                                                               | 1.1                                                                                                                    |
| <b>design of the surge suppressor</b>                                                                                                                              | with varistor                                                                                                          |
| <b>closing power of magnet coil at DC</b>                                                                                                                          | 5.9 W                                                                                                                  |
| <b>holding power of magnet coil at DC</b>                                                                                                                          | 5.9 W                                                                                                                  |
| <b>closing delay</b>                                                                                                                                               |                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                          | 50 ... 170 ms                                                                                                          |
| <b>opening delay</b>                                                                                                                                               |                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                          | 15 ... 18 ms                                                                                                           |
| <b>arcing time</b>                                                                                                                                                 | 10 ... 10 ms                                                                                                           |
| <b>control version of the switch operating mechanism</b>                                                                                                           | Standard A1 - A2                                                                                                       |
| <b>Auxiliary circuit</b>                                                                                                                                           |                                                                                                                        |
| <b>design of the auxiliary switch</b>                                                                                                                              | on the front, non-detachable                                                                                           |
| 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>                                                                                                                |                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>                                                                                           | 11 A                                                                                                                   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                           | 11 A                                                                                                                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>yielded mechanical performance [hp]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>for single-phase AC motor <ul style="list-style-type: none"> <li>at 110/120 V rated value</li> <li>at 230 V rated value</li> </ul> </li> <li>for 3-phase AC motor <ul style="list-style-type: none"> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> </ul> </li> </ul>                                                                                           | 1 hp<br>2 hp<br><br>3 hp<br>3 hp<br>8 hp<br>10 hp                                                                                                                                        |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     | A600 / Q600                                                                                                                                                                              |
| <b>Category Control Number (CCN)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | E31519 (NLDX, NLDX7)                                                                                                                                                                     |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                          |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V                                                                                                                                                                                                                                                                                                                                                                                       | C characteristic: 10 A; 0.4 kA                                                                                                                                                           |
| <b>design of the fuse link</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>with type of coordination 1 required</li> <li>with type of coordination 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                 | gG: 63 A (690 V, 100 kA), aM: 32 A (690 V, 100 kA), BS88: 63 A (415 V, 80 kA)<br>gG: 25 A (690 V, 100 kA), aM: 20 A (690 V, 100 kA), BS88: 25 A (415 V, 80 kA)<br>gG: 10 A (500 V, 1 kA) |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                          |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface                                                     |
| <b>fastening method side-by-side mounting</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes                                                                                                                                                                                      |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                                                                                 |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 102 mm                                                                                                                                                                                   |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 45 mm                                                                                                                                                                                    |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 154 mm                                                                                                                                                                                   |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>with side-by-side mounting <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>for grounded parts <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li> <li>for live parts <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> </ul> | 10 mm<br>10 mm<br>10 mm<br>0 mm<br><br>10 mm<br>10 mm<br>6 mm<br>10 mm<br><br>10 mm<br>10 mm<br>10 mm<br>6 mm                                                                            |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                          |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> </ul>                                                                                                                                                                                                                                                                                                      | spring-loaded terminals<br>spring-loaded terminals<br>Spring-type terminals<br>Spring-type terminals                                                                                     |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>for AWG cables for main contacts</li> </ul>                                                                                                                                                                                        | 2x (1 ... 10 mm <sup>2</sup> )<br>2x (1 ... 10 mm <sup>2</sup> )<br>2x (1 ... 6 mm <sup>2</sup> )<br>2x (1 ... 6 mm <sup>2</sup> )<br>2x (18 ... 8)                                      |
| <b>connectable conductor cross-section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>solid</li> <li>stranded</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                       | 1 ... 10 mm <sup>2</sup><br>1 ... 10 mm <sup>2</sup>                                                                                                                                     |

|                                                                                       |                                   |
|---------------------------------------------------------------------------------------|-----------------------------------|
| • finely stranded with core end processing                                            | 1 ... 6 mm <sup>2</sup>           |
| • finely stranded without core end processing                                         | 1 ... 6 mm <sup>2</sup>           |
| <b>connectable conductor cross-section for auxiliary contacts</b>                     |                                   |
| • solid or stranded                                                                   | 0.5 ... 2.5 mm <sup>2</sup>       |
| • finely stranded with core end processing                                            | 0.5 ... 1.5 mm <sup>2</sup>       |
| • finely stranded without core end processing                                         | 0.5 ... 2.5 mm <sup>2</sup>       |
| <b>type of connectable conductor cross-sections</b>                                   |                                   |
| • for auxiliary contacts                                                              |                                   |
| — solid or stranded                                                                   | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing                                            | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing                                         | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| • for AWG cables for auxiliary contacts                                               | 2x (20 ... 14)                    |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>      | 18 ... 8                          |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b> | 20 ... 14                         |

| Safety related data                                                  |                                                  |
|----------------------------------------------------------------------|--------------------------------------------------|
| <b>product function</b>                                              |                                                  |
| • mirror contact according to IEC 60947-4-1                          | Yes                                              |
| • positively driven operation according to IEC 60947-5-1             | No                                               |
| • suitable for safety function                                       | 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>                              |                                                  |
| • with low demand rate according to SN 31920                         | 40 %                                             |
| • with high demand rate according to SN 31920                        | 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 | Maritime application | other |



[Confirmation](#)

[Miscellaneous](#)



[CCS \(China Classification Society\)](#)



|       |             |
|-------|-------------|
| other | Environment |
|-------|-------------|

[Confirmation](#)



[Environmental Confirmations](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

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

##### Information for data generation and storage

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

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2024-2DB44-3MA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-2DB44-3MA0>

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

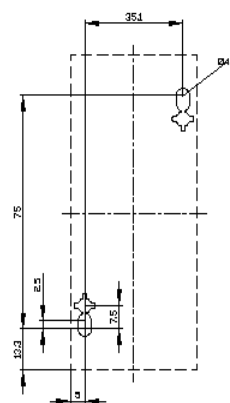
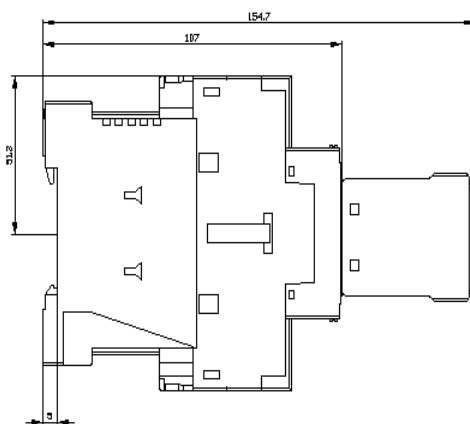
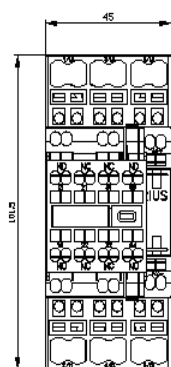
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2024-2DB44-3MA0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2024-2DB44-3MA0&lang=en)

Cax online generator

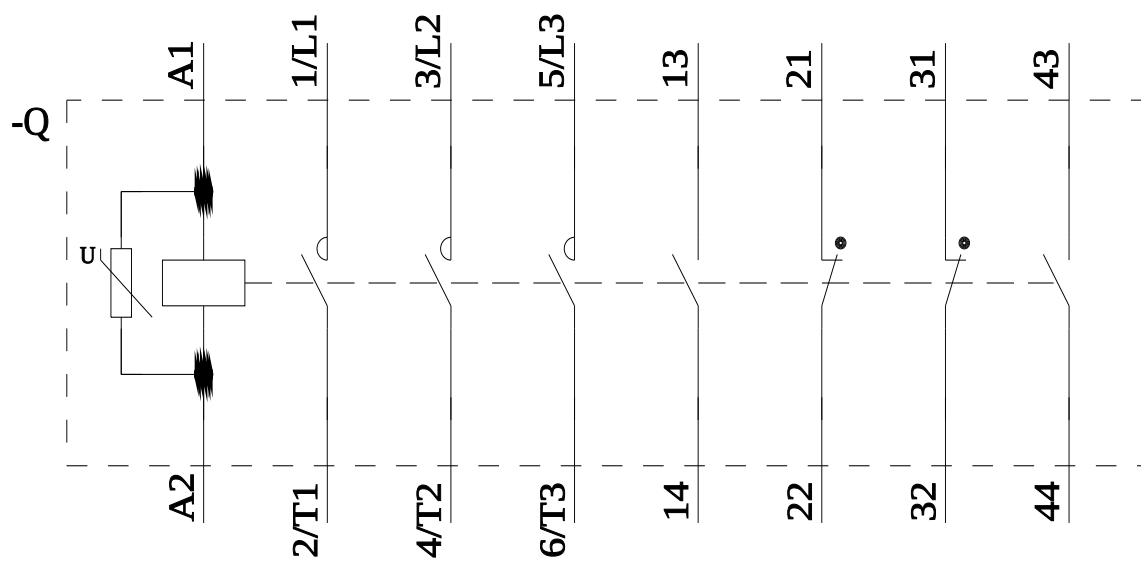
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2024-2DB44-3MA0>

Characteristic curves

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







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