



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 24 V AC, 50/60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S2, removable auxiliary switch

|                                                                                                              |                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                           | SIRIUS                      |
| product designation                                                                                          | Power contactor             |
| product type designation                                                                                     | 3RT2                        |
| <b>General technical data</b>                                                                                |                             |
| size of contactor                                                                                            | S2                          |
| product extension                                                                                            |                             |
| • function module for communication                                                                          | No                          |
| • auxiliary switch                                                                                           | No                          |
| power loss [W] for rated value of the current                                                                |                             |
| • at AC in hot operating state                                                                               | 17.1 W                      |
| • at AC in hot operating state per pole                                                                      | 5.7 W                       |
| • without load current share typical                                                                         | 6.5 W                       |
| type of calculation of power loss depending on pole                                                          | quadratic                   |
| insulation voltage                                                                                           |                             |
| • of main circuit with degree of pollution 3 rated value                                                     | 690 V                       |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                       |
| surge voltage resistance                                                                                     |                             |
| • of main circuit rated value                                                                                | 6 kV                        |
| • of auxiliary circuit rated value                                                                           | 6 kV                        |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V                       |
| shock resistance at rectangular impulse                                                                      |                             |
| • at AC                                                                                                      | 9.8g / 5 ms, 6.5g / 10 ms   |
| shock resistance with sine pulse                                                                             |                             |
| • at AC                                                                                                      | 15.3g / 5 ms, 10.1g / 10 ms |
| mechanical service life (operating cycles)                                                                   |                             |
| • of contactor typical                                                                                       | 10 000 000                  |
| • of the contactor with added electronically optimized auxiliary switch block typical                        | 5 000 000                   |
| • of the contactor with added auxiliary switch block typical                                                 | 10 000 000                  |
| reference code according to IEC 81346-2                                                                      | Q                           |
| Substance Prohibitance (Date)                                                                                | 10/01/2014                  |
| Weight                                                                                                       | 1.071 kg                    |
| <b>Ambient conditions</b>                                                                                    |                             |
| installation altitude at height above sea level maximum                                                      | 2 000 m                     |
| ambient temperature                                                                                          |                             |
| • during operation                                                                                           | -25 ... +60 °C              |
| • during storage                                                                                             | -55 ... +80 °C              |
| relative humidity minimum                                                                                    | 10 %                        |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum                                               | 95 %                        |

| Environmental footprint                                           |                    |
|-------------------------------------------------------------------|--------------------|
| Environmental Product Declaration(EPD)                            | Yes                |
| global warming potential [CO2 eq] total                           | 236 kg             |
| global warming potential [CO2 eq] during manufacturing            | 4.11 kg            |
| global warming potential [CO2 eq] during operation                | 233 kg             |
| global warming potential [CO2 eq] after end of life               | -0.635 kg          |
| Main circuit                                                      |                    |
| number of poles for main current circuit                          | 3                  |
| number of NO contacts for main contacts                           | 3                  |
| operating voltage                                                 |                    |
| • at AC-3 rated value maximum                                     | 690 V              |
| • at AC-3e rated value maximum                                    | 690 V              |
| operational current                                               |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value       | 90 A               |
| • at AC-1                                                         |                    |
| — up to 690 V at ambient temperature 40 °C rated value            | 90 A               |
| — up to 690 V at ambient temperature 60 °C rated value            | 80 A               |
| • at AC-3                                                         |                    |
| — at 400 V rated value                                            | 80 A               |
| — at 500 V rated value                                            | 80 A               |
| — at 690 V rated value                                            | 58 A               |
| • at AC-3e                                                        |                    |
| — at 400 V rated value                                            | 80 A               |
| — at 500 V rated value                                            | 80 A               |
| — at 690 V rated value                                            | 58 A               |
| • at AC-4 at 400 V rated value                                    | 55 A               |
| • at AC-5a up to 690 V rated value                                | 79.2 A             |
| • at AC-5b up to 400 V rated value                                | 66.4 A             |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=20 rated value             | 70 A               |
| — up to 400 V for current peak value n=20 rated value             | 70 A               |
| — up to 500 V for current peak value n=20 rated value             | 70 A               |
| — up to 690 V for current peak value n=20 rated value             | 58 A               |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 400 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 500 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 690 V for current peak value n=30 rated value             | 46.7 A             |
| minimum cross-section in main circuit at maximum AC-1 rated value | 35 mm <sup>2</sup> |
| operational current for approx. 200000 operating cycles at AC-4   |                    |
| • at 400 V rated value                                            | 30 A               |
| • at 690 V rated value                                            | 24 A               |
| operational current                                               |                    |
| • at 1 current path at DC-1                                       |                    |
| — at 24 V rated value                                             | 55 A               |
| — at 60 V rated value                                             | 23 A               |
| — at 110 V rated value                                            | 4.5 A              |
| — at 220 V rated value                                            | 1 A                |
| — at 440 V rated value                                            | 0.4 A              |
| — at 600 V rated value                                            | 0.25 A             |
| • with 2 current paths in series at DC-1                          |                    |
| — at 24 V rated value                                             | 55 A               |
| — at 60 V rated value                                             | 45 A               |
| — at 110 V rated value                                            | 45 A               |
| — at 220 V rated value                                            | 5 A                |
| — at 440 V rated value                                            | 1 A                |
| — at 600 V rated value                                            | 0.8 A              |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul> | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.9 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.4 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6 A                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 A                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.1 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.06 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5 A                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.27 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.16 A                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 55 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25 A                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.6 A                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.35 A                                                      |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                             |
| • at AC-2 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 37 kW                                                       |
| • at AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                             |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                       |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37 kW                                                       |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37 kW                                                       |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 45 kW                                                       |
| • at AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                             |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22 kW                                                       |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37 kW                                                       |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37 kW                                                       |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 45 kW                                                       |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                             |
| • at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15.8 kW                                                     |
| • at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 21.8 kW                                                     |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                             |
| • up to 230 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 27.8 kVA                                                    |
| • up to 400 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 48.4 kVA                                                    |
| • up to 500 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 60.6 kVA                                                    |
| • up to 690 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 69.3 kVA                                                    |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                             |
| • up to 230 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 18.6 kVA                                                    |
| • up to 400 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 32.3 kVA                                                    |
| • up to 500 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 40.4 kVA                                                    |
| • up to 690 V for current peak value n=30 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 55.8 kVA                                                    |
| <b>short-time withstand current in cold operating state up to 40 °C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |
| • limited to 1 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 298 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 5 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 898 A; Use minimum cross-section acc. to AC-1 rated value   |
| • limited to 10 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 640 A; Use minimum cross-section acc. to AC-1 rated value   |
| • limited to 30 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 414 A; Use minimum cross-section acc. to AC-1 rated value   |
| • limited to 60 s switching at zero current maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 333 A; Use minimum cross-section acc. to AC-1 rated value   |
| <b>no-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                             |

|                                                                                       |                  |
|---------------------------------------------------------------------------------------|------------------|
| • at AC                                                                               | 5 000 1/h        |
| <b>operating frequency</b>                                                            |                  |
| • at AC-1 maximum                                                                     | 700 1/h          |
| • at AC-2 maximum                                                                     | 350 1/h          |
| • at AC-3 maximum                                                                     | 500 1/h          |
| • at AC-3e                                                                            |                  |
| — maximum                                                                             | 500 1/h          |
| • at AC-4 maximum                                                                     | 150 1/h          |
| <b>Control circuit/ Control</b>                                                       |                  |
| <b>type of voltage of the control supply voltage</b>                                  | AC               |
| <b>control supply voltage at AC</b>                                                   |                  |
| • at 50 Hz rated value                                                                | 24 V             |
| • at 60 Hz rated value                                                                | 24 V             |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> |                  |
| • at 50 Hz                                                                            | 0.8 ... 1.1      |
| • at 60 Hz                                                                            | 0.85 ... 1.1     |
| <b>apparent pick-up power of magnet coil at AC</b>                                    |                  |
| • at 50 Hz                                                                            | 210 VA           |
| • at 60 Hz                                                                            | 188 VA           |
| <b>inductive power factor with closing power of the coil</b>                          |                  |
| • at 50 Hz                                                                            | 0.69             |
| • at 60 Hz                                                                            | 0.65             |
| <b>apparent holding power of magnet coil at AC</b>                                    |                  |
| • at 50 Hz                                                                            | 17.2 VA          |
| • at 60 Hz                                                                            | 16.5 VA          |
| <b>inductive power factor with the holding power of the coil</b>                      |                  |
| • at 50 Hz                                                                            | 0.36             |
| • at 60 Hz                                                                            | 0.39             |
| <b>closing delay</b>                                                                  |                  |
| • at AC                                                                               | 10 ... 80 ms     |
| <b>opening delay</b>                                                                  |                  |
| • at AC                                                                               | 10 ... 18 ms     |
| <b>arcing time</b>                                                                    | 10 ... 20 ms     |
| <b>control version of the switch operating mechanism</b>                              | Standard A1 - A2 |
| <b>Auxiliary circuit</b>                                                              |                  |
| number of NC contacts for auxiliary contacts instantaneous contact                    | 2                |
| number of NO contacts for auxiliary contacts instantaneous contact                    | 2                |
| operational current at AC-12 maximum                                                  | 10 A             |
| <b>operational current at AC-15</b>                                                   |                  |
| • at 230 V rated value                                                                | 6 A              |
| • at 400 V rated value                                                                | 3 A              |
| • at 500 V rated value                                                                | 2 A              |
| • at 690 V rated value                                                                | 1 A              |
| <b>operational current at DC-12</b>                                                   |                  |
| • at 24 V rated value                                                                 | 10 A             |
| • at 48 V rated value                                                                 | 6 A              |
| • at 60 V rated value                                                                 | 6 A              |
| • at 110 V rated value                                                                | 3 A              |
| • at 125 V rated value                                                                | 2 A              |
| • at 220 V rated value                                                                | 1 A              |
| • at 600 V rated value                                                                | 0.15 A           |
| <b>operational current at DC-13</b>                                                   |                  |
| • at 24 V rated value                                                                 | 6 A              |
| • at 48 V rated value                                                                 | 2 A              |
| • at 60 V rated value                                                                 | 2 A              |
| • at 110 V rated value                                                                | 1 A              |
| • at 125 V rated value                                                                | 0.9 A            |
| • at 220 V rated value                                                                | 0.3 A            |

|                                                                                                           |                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| • at 600 V rated value                                                                                    | 0.1 A                                                                                                                                |
| <b>contact reliability of auxiliary contacts</b>                                                          | 1 faulty switching per 100 million (17 V, 1 mA)                                                                                      |
| <b>UL/CSA ratings</b>                                                                                     |                                                                                                                                      |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                                       |                                                                                                                                      |
| • at 480 V rated value                                                                                    | 65 A                                                                                                                                 |
| • at 600 V rated value                                                                                    | 62 A                                                                                                                                 |
| <b>yielded mechanical performance [hp]</b>                                                                |                                                                                                                                      |
| • for single-phase AC motor                                                                               |                                                                                                                                      |
| — at 110/120 V rated value                                                                                | 5 hp                                                                                                                                 |
| — at 230 V rated value                                                                                    | 15 hp                                                                                                                                |
| • for 3-phase AC motor                                                                                    |                                                                                                                                      |
| — at 200/208 V rated value                                                                                | 20 hp                                                                                                                                |
| — at 220/230 V rated value                                                                                | 25 hp                                                                                                                                |
| — at 460/480 V rated value                                                                                | 50 hp                                                                                                                                |
| — at 575/600 V rated value                                                                                | 60 hp                                                                                                                                |
| <b>contact rating of auxiliary contacts according to UL</b>                                               | A600 / Q600                                                                                                                          |
| <b>Short-circuit protection</b>                                                                           |                                                                                                                                      |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA                                                                                                       |
| <b>design of the fuse link</b>                                                                            |                                                                                                                                      |
| • for short-circuit protection of the main circuit                                                        |                                                                                                                                      |
| — with type of coordination 1 required                                                                    | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)                                                     |
| — with type of coordination 2 required                                                                    | gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)                                                      |
| • for short-circuit protection of the auxiliary switch required                                           | gG: 10 A (500 V, 1 kA)                                                                                                               |
| <b>Installation/ mounting/ dimensions</b>                                                                 |                                                                                                                                      |
| <b>mounting position</b>                                                                                  | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| fastening method side-by-side mounting                                                                    | Yes                                                                                                                                  |
| <b>fastening method</b>                                                                                   | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                                                             | 114 mm                                                                                                                               |
| <b>width</b>                                                                                              | 55 mm                                                                                                                                |
| <b>depth</b>                                                                                              | 174 mm                                                                                                                               |
| <b>required spacing</b>                                                                                   |                                                                                                                                      |
| • with side-by-side mounting                                                                              |                                                                                                                                      |
| — forwards                                                                                                | 10 mm                                                                                                                                |
| — upwards                                                                                                 | 10 mm                                                                                                                                |
| — downwards                                                                                               | 10 mm                                                                                                                                |
| — at the side                                                                                             | 0 mm                                                                                                                                 |
| • for grounded parts                                                                                      |                                                                                                                                      |
| — forwards                                                                                                | 10 mm                                                                                                                                |
| — upwards                                                                                                 | 10 mm                                                                                                                                |
| — at the side                                                                                             | 6 mm                                                                                                                                 |
| — downwards                                                                                               | 10 mm                                                                                                                                |
| • for live parts                                                                                          |                                                                                                                                      |
| — forwards                                                                                                | 10 mm                                                                                                                                |
| — upwards                                                                                                 | 10 mm                                                                                                                                |
| — downwards                                                                                               | 10 mm                                                                                                                                |
| — at the side                                                                                             | 6 mm                                                                                                                                 |
| <b>Connections/ Terminals</b>                                                                             |                                                                                                                                      |
| <b>type of electrical connection</b>                                                                      |                                                                                                                                      |
| • for main current circuit                                                                                | screw-type terminals                                                                                                                 |
| • for auxiliary and control circuit                                                                       | screw-type terminals                                                                                                                 |
| • at contactor for auxiliary contacts                                                                     | Screw-type terminals                                                                                                                 |
| • of magnet coil                                                                                          | Screw-type terminals                                                                                                                 |
| <b>type of connectable conductor cross-sections</b>                                                       |                                                                                                                                      |
| • for main contacts                                                                                       |                                                                                                                                      |
| — solid or stranded                                                                                       | 2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )                                                                       |
| — finely stranded with core end processing                                                                | 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> )                                                                       |
| • for AWG cables for main contacts                                                                        | 2x (18 ... 2), 1x (18 ... 1)                                                                                                         |
| <b>connectable conductor cross-section for main contacts</b>                                              |                                                                                                                                      |

|                                                                                       |                                                                       |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| • finely stranded with core end processing                                            | 1 ... 35 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 ... 2.5 mm <sup>2</sup>                                           |
| <b>type of connectable conductor cross-sections</b>                                   |                                                                       |
| • for auxiliary contacts                                                              |                                                                       |
| — solid or stranded                                                                   | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing                                            | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • for AWG cables for auxiliary contacts                                               | 2x (20 ... 16), 2x (18 ... 14)                                        |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>      | 18 ... 1                                                              |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b> | 20 ... 14                                                             |

|                                                                      |                                                  |
|----------------------------------------------------------------------|--------------------------------------------------|
| <b>Safety related data</b>                                           |                                                  |
| <b>product function</b>                                              |                                                  |
| • 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                                          |
| <b>ISO 13849</b>                                                     |                                                  |
| <b>device type according to ISO 13849-1</b>                          | 3                                                |
| <b>overdimensioning according to ISO 13849-2 necessary</b>           | Yes                                              |
| <b>IEC 61508</b>                                                     |                                                  |
| <b>safety device type according to IEC 61508-2</b>                   | Type A                                           |
| <b>Electrical Safety</b>                                             |                                                  |
| <b>protection class IP on the front according to IEC 60529</b>       | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>          | finger-safe, for vertical contact from the front |

|                                 |  |
|---------------------------------|--|
| <b>Approvals Certificates</b>   |  |
| <b>General Product Approval</b> |  |



[KC](#)



|            |                          |                             |
|------------|--------------------------|-----------------------------|
| <b>EMV</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|------------|--------------------------|-----------------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                             |              |
|-----------------------------|--------------|
| <b>Maritime application</b> | <b>other</b> |
|-----------------------------|--------------|



[Confirmation](#)

|              |                |                        |                    |
|--------------|----------------|------------------------|--------------------|
| <b>other</b> | <b>Railway</b> | <b>Dangerous goods</b> | <b>Environment</b> |
|--------------|----------------|------------------------|--------------------|



#### 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=3RT2038-1AC24>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1AC24>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AC24>

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

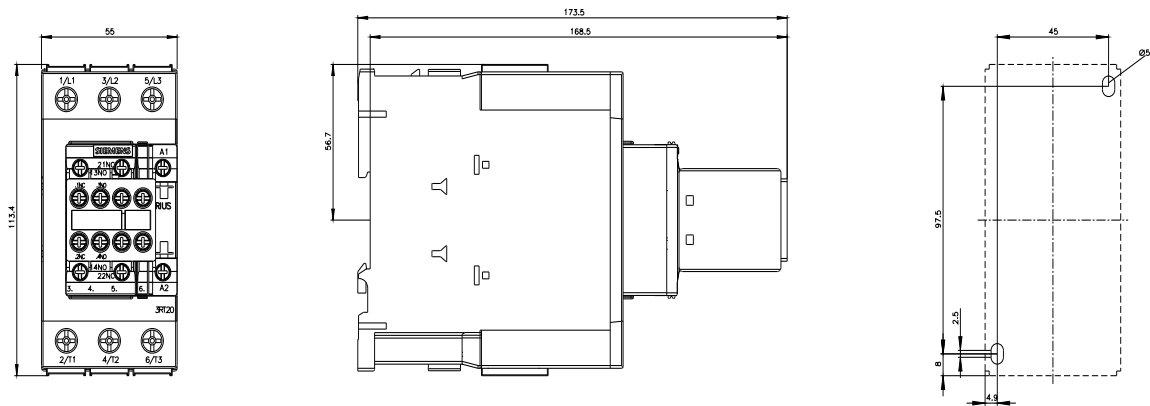
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2038-1AC24&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-1AC24&lang=en)

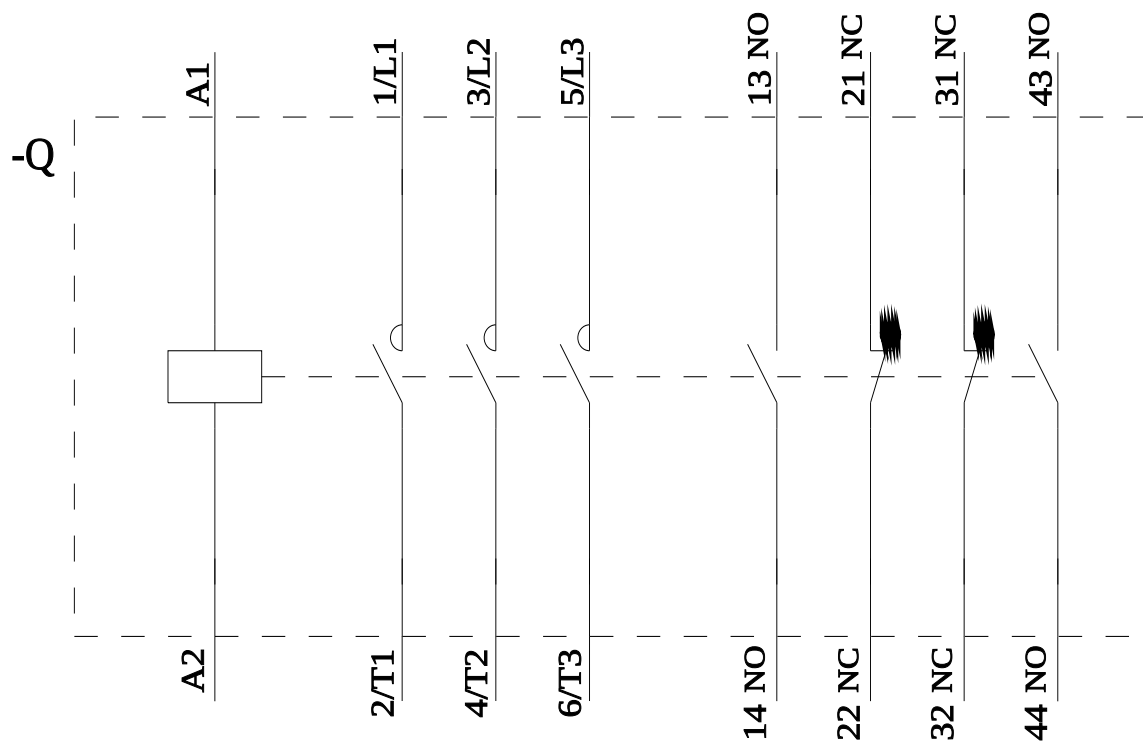
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AC24/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1AC24&objecttype=14&gridview=view1>





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9/5/2025