

Siemens  
EcoTech



power contactor, AC-3e/AC-3 300 A, 160 kW / 400 V, AC (50-60 Hz) / DC U<sub>c</sub>: 440-480 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: busbar control and auxiliary circuit: spring-loaded terminal



|                                                                                                              |                            |
|--------------------------------------------------------------------------------------------------------------|----------------------------|
| product brand name                                                                                           | SIRIUS                     |
| product designation                                                                                          | Power contactor            |
| product type designation                                                                                     | 3RT1                       |
| <b>General technical data</b>                                                                                |                            |
| size of contactor                                                                                            | S10                        |
| product extension                                                                                            |                            |
| • function module for communication                                                                          | No                         |
| • auxiliary switch                                                                                           | Yes                        |
| power loss [W] for rated value of the current                                                                |                            |
| • at AC in hot operating state                                                                               | 66 W                       |
| • at AC in hot operating state per pole                                                                      | 22 W                       |
| • without load current share typical                                                                         | 7.4 W                      |
| type of calculation of power loss depending on pole                                                          | quadratic                  |
| insulation voltage                                                                                           |                            |
| • of main circuit with degree of pollution 3 rated value                                                     | 1 000 V                    |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 500 V                      |
| surge voltage resistance                                                                                     |                            |
| • of main circuit rated value                                                                                | 8 kV                       |
| • of auxiliary circuit rated value                                                                           | 6 kV                       |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 690 V                      |
| shock resistance at rectangular impulse                                                                      |                            |
| • at AC                                                                                                      | 8,5g / 5 ms, 4,2g / 10 ms  |
| • at DC                                                                                                      | 8,5g / 5 ms, 4,2g / 10 ms  |
| shock resistance with sine pulse                                                                             |                            |
| • at AC                                                                                                      | 13,4g / 5 ms, 6,5g / 10 ms |
| • at DC                                                                                                      | 13,4g / 5 ms, 6,5g / 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 Prohibition (Date)                                                                                 |                            |
| SVHC substance name                                                                                          | Lead - 7439-92-1           |
| Weight                                                                                                       | 6.61 kg                    |
| <b>Ambient conditions</b>                                                                                    |                            |
| installation altitude at height above sea level maximum                                                      | 2 000 m                    |

|                                                                        |                     |
|------------------------------------------------------------------------|---------------------|
| <b>ambient temperature</b>                                             |                     |
| • during operation                                                     | -25 ... +60 °C      |
| • during storage                                                       | -55 ... +80 °C      |
| <b>relative humidity minimum</b>                                       | 10 %                |
| <b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>  | 95 %                |
| <b>Environmental footprint</b>                                         |                     |
| Environmental Product Declaration (EPD)                                | Yes                 |
| Global Warming Potential [CO2 eq] total                                | 580 kg              |
| Global Warming Potential [CO2 eq] during manufacturing                 | 26.3 kg             |
| Global Warming Potential [CO2 eq] during operation                     | 559 kg              |
| Global Warming Potential [CO2 eq] after end of life                    | -4.89 kg            |
| <b>Main circuit</b>                                                    |                     |
| <b>number of poles for main current circuit</b>                        | 3                   |
| <b>number of NO contacts for main contacts</b>                         | 3                   |
| <b>operating voltage</b>                                               |                     |
| • at AC-3 rated value maximum                                          | 1 000 V             |
| • at AC-3e rated value maximum                                         | 1 000 V             |
| <b>operational current</b>                                             |                     |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 330 A               |
| • at AC-1                                                              |                     |
| — up to 690 V at ambient temperature 40 °C rated value                 | 330 A               |
| — up to 690 V at ambient temperature 60 °C rated value                 | 300 A               |
| — up to 1000 V at ambient temperature 40 °C rated value                | 150 A               |
| — up to 1000 V at ambient temperature 60 °C rated value                | 150 A               |
| • at AC-3                                                              |                     |
| — at 400 V rated value                                                 | 300 A               |
| — at 500 V rated value                                                 | 300 A               |
| — at 690 V rated value                                                 | 280 A               |
| — at 1000 V rated value                                                | 95 A                |
| • at AC-3e                                                             |                     |
| — at 400 V rated value                                                 | 300 A               |
| — at 500 V rated value                                                 | 300 A               |
| — at 690 V rated value                                                 | 280 A               |
| — at 1000 V rated value                                                | 95 A                |
| • at AC-4 at 400 V rated value                                         | 280 A               |
| • at AC-5a up to 690 V rated value                                     | 290 A               |
| • at AC-5b up to 400 V rated value                                     | 249 A               |
| • at AC-6a                                                             |                     |
| — up to 230 V for current peak value n=20 rated value                  | 292 A               |
| — up to 400 V for current peak value n=20 rated value                  | 292 A               |
| — up to 500 V for current peak value n=20 rated value                  | 292 A               |
| — up to 690 V for current peak value n=20 rated value                  | 280 A               |
| — up to 1000 V for current peak value n=20 rated value                 | 95 A                |
| • at AC-6a                                                             |                     |
| — up to 230 V for current peak value n=30 rated value                  | 195 A               |
| — up to 400 V for current peak value n=30 rated value                  | 195 A               |
| — up to 500 V for current peak value n=30 rated value                  | 195 A               |
| — up to 690 V for current peak value n=30 rated value                  | 195 A               |
| — up to 1000 V for current peak value n=30 rated value                 | 95 A                |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 185 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                     |
| • at 400 V rated value                                                 | 125 A               |
| • at 690 V rated value                                                 | 115 A               |
| <b>operational current</b>                                             |                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <ul style="list-style-type: none"> <li>● <b>at 1 current path at DC-1</b> <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>● <b>with 2 current paths in series at DC-1</b> <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>● <b>with 3 current paths in series at DC-1</b> <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>● <b>at 1 current path at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 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>● <b>with 2 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 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>● <b>with 3 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 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> | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 33 A        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3.8 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.9 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.6 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 A         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 11 A        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5.2 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 11 A        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.6 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.18 A      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.125 A     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.5 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.65 A      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.37 A      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 300 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1.4 A       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.75 A      |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |
| ● at AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 90 kW       |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 160 kW      |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 200 kW      |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 250 kW      |
| — at 1000 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 132 kW      |
| ● at AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |
| — at 230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 90 kW       |
| — at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 160 kW      |
| — at 500 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 200 kW      |
| — at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 250 kW      |
| — at 1000 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 132 kW      |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |
| ● at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 71 kW       |
| ● at 690 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 112 kW      |
| <b>operating apparent power at AC-6a</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
| ● up to 230 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 110 000 kVA |
| ● up to 400 V for current peak value n=20 rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 200 000 VA  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• up to 500 V for current peak value n=20 rated value</li> <li>• up to 690 V for current peak value n=20 rated value</li> <li>• up to 1000 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                          | 250 000 VA<br>330 000 VA<br>160 000 VA                                                                                                                                                                                                                                                                                  |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=30 rated value</li> <li>• up to 400 V for current peak value n=30 rated value</li> <li>• up to 500 V for current peak value n=30 rated value</li> <li>• up to 690 V for current peak value n=30 rated value</li> <li>• up to 1000 V for current peak value n=30 rated value</li> </ul>                   | 70 000 VA<br>130 000 VA<br>160 000 VA<br>230 000 VA<br>160 000 VA                                                                                                                                                                                                                                                       |
| <b>short-time withstand current in cold operating state up to 40 °C</b> <ul style="list-style-type: none"> <li>• limited to 1 s switching at zero current maximum</li> <li>• limited to 5 s switching at zero current maximum</li> <li>• limited to 10 s switching at zero current maximum</li> <li>• limited to 30 s switching at zero current maximum</li> <li>• limited to 60 s switching at zero current maximum</li> </ul> | 5 524 A; Use minimum cross-section acc. to AC-1 rated value<br>4 579 A; Use minimum cross-section acc. to AC-1 rated value<br>3 153 A; Use minimum cross-section acc. to AC-1 rated value<br>1 883 A; Use minimum cross-section acc. to AC-1 rated value<br>1 445 A; Use minimum cross-section acc. to AC-1 rated value |
| <b>no-load switching frequency</b> <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                   | 2 000 1/h<br>2 000 1/h                                                                                                                                                                                                                                                                                                  |
| <b>operating frequency</b> <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-3e maximum</li> <li>• at AC-4 maximum</li> </ul>                                                                                                                                                                                                                     | 750 1/h<br>250 1/h<br>500 1/h<br>500 1/h<br>130 1/h                                                                                                                                                                                                                                                                     |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                         |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                                            | AC/DC                                                                                                                                                                                                                                                                                                                   |
| <b>control supply voltage at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                    | 440 ... 480 V<br>440 ... 480 V                                                                                                                                                                                                                                                                                          |
| <b>control supply voltage at DC rated value</b>                                                                                                                                                                                                                                                                                                                                                                                 | 440 ... 480 V                                                                                                                                                                                                                                                                                                           |
| <b>operating range factor control supply voltage rated value of magnet coil at DC</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>                                                                                                                                                                                                                                             | 0.8<br>1.1                                                                                                                                                                                                                                                                                                              |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                          | 0.8 ... 1.1<br>0.8 ... 1.1                                                                                                                                                                                                                                                                                              |
| <b>design of the surge suppressor</b>                                                                                                                                                                                                                                                                                                                                                                                           | with varistor                                                                                                                                                                                                                                                                                                           |
| <b>apparent pick-up power</b> <ul style="list-style-type: none"> <li>• at minimum rated control supply voltage at AC <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> <li>• at maximum rated control supply voltage at AC <ul style="list-style-type: none"> <li>— at 60 Hz</li> <li>— at 50 Hz</li> </ul> </li> </ul>                                                                    | 490 VA<br>490 VA<br>590 VA<br>590 VA                                                                                                                                                                                                                                                                                    |
| <b>apparent pick-up power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                             | 590 VA<br>590 VA                                                                                                                                                                                                                                                                                                        |
| <b>inductive power factor with closing power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                   | 0.9<br>0.9                                                                                                                                                                                                                                                                                                              |
| <b>apparent holding power</b> <ul style="list-style-type: none"> <li>• at minimum rated control supply voltage at DC</li> <li>• at maximum rated control supply voltage at DC</li> </ul>                                                                                                                                                                                                                                        | 6.1 VA<br>7.4 VA                                                                                                                                                                                                                                                                                                        |
| <b>apparent holding power</b> <ul style="list-style-type: none"> <li>• at minimum rated control supply voltage at AC <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> <li>• at maximum rated control supply voltage at AC <ul style="list-style-type: none"> <li>— at 50 Hz</li> </ul> </li> </ul>                                                                                        | 5.6 VA<br>5.6 VA<br>6.7 VA                                                                                                                                                                                                                                                                                              |

|                                                                    |                                                                                 |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------|
| — at 60 Hz                                                         | 6.7 VA                                                                          |
| <b>inductive power factor with the holding power of the coil</b>   |                                                                                 |
| • at 50 Hz                                                         | 0.9                                                                             |
| • at 60 Hz                                                         | 0.9                                                                             |
| <b>closing power of magnet coil at DC</b>                          | 650 W                                                                           |
| <b>holding power of magnet coil at DC</b>                          | 7.4 W                                                                           |
| <b>closing delay</b>                                               |                                                                                 |
| • at AC                                                            | 30 ... 95 ms                                                                    |
| • at DC                                                            | 30 ... 95 ms                                                                    |
| <b>opening delay</b>                                               |                                                                                 |
| • at AC                                                            | 40 ... 80 ms                                                                    |
| • at DC                                                            | 40 ... 80 ms                                                                    |
| <b>arcing time</b>                                                 | 10 ... 15 ms                                                                    |
| <b>control version of the switch operating mechanism</b>           | Standard A1 - A2                                                                |
| <b>Auxiliary circuit</b>                                           |                                                                                 |
| number of NC contacts for auxiliary contacts instantaneous contact | 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                                              | 10 A                                                                            |
| • at 48 V rated value                                              | 2 A                                                                             |
| • at 60 V rated value                                              | 2 A                                                                             |
| • at 110 V rated value                                             | 1 A                                                                             |
| • at 125 V rated value                                             | 0.9 A                                                                           |
| • at 220 V rated value                                             | 0.3 A                                                                           |
| • at 600 V rated value                                             | 0.1 A                                                                           |
| <b>contact reliability of auxiliary contacts</b>                   | 1 faulty switching per 100 million (17 V, 1 mA)                                 |
| <b>UL/CSA ratings</b>                                              |                                                                                 |
| <b>full-load current (FLA) for 3-phase AC motor</b>                |                                                                                 |
| • at 480 V rated value                                             | 302 A                                                                           |
| • at 600 V rated value                                             | 289 A                                                                           |
| <b>yielded mechanical performance [hp]</b>                         |                                                                                 |
| • for 3-phase AC motor                                             |                                                                                 |
| — at 200/208 V rated value                                         | 100 hp                                                                          |
| — at 220/230 V rated value                                         | 125 hp                                                                          |
| — at 460/480 V rated value                                         | 250 hp                                                                          |
| — at 575/600 V rated value                                         | 300 hp                                                                          |
| <b>contact rating of auxiliary contacts according to UL</b>        | A600 / Q600                                                                     |
| <b>Short-circuit protection</b>                                    |                                                                                 |
| <b>design of the fuse link</b>                                     |                                                                                 |
| • for short-circuit protection of the main circuit                 |                                                                                 |
| — with type of coordination 1 required                             | gG: 500 A (690 V, 100 kA)                                                       |
| — with type of assignment 2 required                               | gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | screw fixing                                                                                                             |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 210 mm                                                                                                                   |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 145 mm                                                                                                                   |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 202 mm                                                                                                                   |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 20 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 20 mm</li> <li>— upwards 10 mm</li> <li>— at the side 10 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 20 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> </ul> |                                                                                                                          |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                          |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                   | Connection bar<br>spring-loaded terminals<br>Spring-type terminals<br>Spring-type terminals                              |
| <b>width of connection bar</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 25 mm                                                                                                                    |
| <b>thickness of connection bar</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6 mm                                                                                                                     |
| <b>diameter of holes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11 mm                                                                                                                    |
| <b>number of holes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                                                                                                                        |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• for AWG cables for main contacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2/0 ... 500 kcmil                                                                                                        |
| <b>connectable conductor cross-section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• stranded</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 70 ... 240 mm²                                                                                                           |
| <b>connectable conductor cross-section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.25 ... 2.5 mm²<br>0.25 ... 1.5 mm²<br>0.25 ... 2.5 mm²                                                                 |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>                                                                                                                                                                                                                                                                       | 2x (0.25 ... 2.5 mm²)<br>2x (0.25 ... 2.5 mm²)<br>2x (0.25 ... 1.5 mm²)<br>2x (0.25 ... 2.5 mm²)<br>2x (24 ... 14)       |
| <b>AWG number as coded connectable conductor cross section</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 24 ... 14                                                                                                                |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                          |
| <b>product function</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> <li>• suitable for safety function</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              | Yes<br>No<br>Yes                                                                                                         |
| suitability for use safety-related switching OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Yes                                                                                                                      |
| <b>service life maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20 a                                                                                                                     |
| <b>test wear-related service life necessary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                                                                                                                      |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                          |
| <ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> <li>• with high demand rate according to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                | 40 %<br>73 %                                                                                                             |

|                                                               |                                                                          |
|---------------------------------------------------------------|--------------------------------------------------------------------------|
| B10 value with high demand rate according to SN 31920         | 1 000 000                                                                |
| failure rate [FIT] with low demand rate according to SN 31920 | 100 FIT                                                                  |
| ISO 13849                                                     |                                                                          |
| device type according to ISO 13849-1                          | 3                                                                        |
| overdimensioning according to ISO 13849-2 necessary           | Yes                                                                      |
| IEC 61508                                                     |                                                                          |
| safety device type according to IEC 61508-2                   | Type A                                                                   |
| Electrical Safety                                             |                                                                          |
| protection class IP on the front according to IEC 60529       | IP00; IP20 with box terminal/cover                                       |
| touch protection on the front according to IEC 60529          | finger-safe, for vertical contact from the front with box terminal/cover |
| Approvals Certificates                                        |                                                                          |
| General Product Approval                                      |                                                                          |



[Confirmation](#)



[KC](#)

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



[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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



[Miscellaneous](#)

[Confirmation](#)

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

[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)



Siemens EcoTech



[Environmental Confirmations](#)

#### Further information

Information on the packaging

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

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1066-2AR36>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1066-2AR36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1066-2AR36>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1066-2AR36&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1066-2AR36&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1066-2AR36/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1066-2AR36&objecttype=14&gridview=view1>



