



power contactor, AC-3e/AC-3, 110 A, 55 kW / 400 V, 3-pole, 20-33 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3

|                                                                                                              |                                                            |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>product brand name</b>                                                                                    | SIRIUS                                                     |
| <b>product designation</b>                                                                                   | Power contactor                                            |
| <b>product type designation</b>                                                                              | 3RT2                                                       |
| <b>General technical data</b>                                                                                |                                                            |
| <b>size of contactor</b>                                                                                     | S3                                                         |
| <b>product extension</b>                                                                                     |                                                            |
| • function module for communication                                                                          | No                                                         |
| • auxiliary switch                                                                                           | Yes                                                        |
| <b>power loss [W] for rated value of the current</b>                                                         |                                                            |
| • at AC in hot operating state                                                                               | 23.7 W                                                     |
| • at AC in hot operating state per pole                                                                      | 7.9 W                                                      |
| • without load current share typical                                                                         | 1.8 W                                                      |
| <b>type of calculation of power loss depending on pole</b>                                                   | quadratic                                                  |
| <b>insulation voltage</b>                                                                                    |                                                            |
| • of main circuit with degree of pollution 3 rated value                                                     | 1 000 V                                                    |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                                                      |
| <b>surge voltage resistance</b>                                                                              |                                                            |
| • 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                                                      |
| <b>shock resistance at rectangular impulse</b>                                                               |                                                            |
| • at AC                                                                                                      | 10.3g / 5 ms, 6. g / 10 ms                                 |
| • at DC                                                                                                      | 6.7 g / 5 ms, 4g / 10 ms                                   |
| <b>shock resistance with sine pulse</b>                                                                      |                                                            |
| • at AC                                                                                                      | 16.3g / 5 ms, 10.g / 10 ms                                 |
| • at DC                                                                                                      | 10.6 g / 5 ms, 6.3 g / 10 ms                               |
| <b>mechanical service life (operating cycles)</b>                                                            |                                                            |
| • 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                                                 |
| <b>reference code according to IEC 81346-2</b>                                                               | Q                                                          |
| <b>Substance Prohibition (Date)</b>                                                                          | 03/01/2017                                                 |
| <b>SVHC substance name</b>                                                                                   | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8 |
| <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                                | 267 kg             |
| Global Warming Potential [CO2 eq] during manufacturing                 | 9.35 kg            |
| Global Warming Potential [CO2 eq] during operation                     | 259 kg             |
| Global Warming Potential [CO2 eq] after end of life                    | -1.55 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            | 130 A              |
| • at AC-1                                                              |                    |
| — up to 690 V at ambient temperature 40 °C rated value                 | 130 A              |
| — up to 690 V at ambient temperature 60 °C rated value                 | 110 A              |
| • at AC-3                                                              |                    |
| — at 400 V rated value                                                 | 110 A              |
| — at 500 V rated value                                                 | 110 A              |
| — at 690 V rated value                                                 | 98 A               |
| — at 1000 V rated value                                                | 30 A               |
| • at AC-3e                                                             |                    |
| — at 400 V rated value                                                 | 110 A              |
| — at 500 V rated value                                                 | 110 A              |
| — at 690 V rated value                                                 | 98 A               |
| — at 1000 V rated value                                                | 30 A               |
| • at AC-4 at 400 V rated value                                         | 97 A               |
| • at AC-5a up to 690 V rated value                                     | 120 A              |
| • at AC-5b up to 400 V rated value                                     | 110 A              |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=20 rated value                  | 98 A               |
| — up to 400 V for current peak value n=20 rated value                  | 98 A               |
| — up to 500 V for current peak value n=20 rated value                  | 98 A               |
| — up to 690 V for current peak value n=20 rated value                  | 98 A               |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 65.3 A             |
| — up to 400 V for current peak value n=30 rated value                  | 65.3 A             |
| — up to 500 V for current peak value n=30 rated value                  | 65.3 A             |
| — up to 690 V for current peak value n=30 rated value                  | 65.3 A             |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 50 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                    |
| • at 400 V rated value                                                 | 46 A               |
| • at 690 V rated value                                                 | 36 A               |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 100 A              |
| — at 60 V rated value                                                  | 60 A               |
| — at 110 V rated value                                                 | 9 A                |
| — at 220 V rated value                                                 | 2 A                |
| — at 440 V rated value                                                 | 0.6 A              |
| — at 600 V rated value                                                 | 0.4 A              |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 100 A              |

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|--------------------------------------------------------------------|----------|
| — at 60 V rated value                                              | 100 A    |
| — at 110 V rated value                                             | 100 A    |
| — at 220 V rated value                                             | 10 A     |
| — at 440 V rated value                                             | 1.8 A    |
| — at 600 V rated value                                             | 1 A      |
| <b>● with 3 current paths in series at DC-1</b>                    |          |
| — at 24 V rated value                                              | 100 A    |
| — at 60 V rated value                                              | 100 A    |
| — at 110 V rated value                                             | 100 A    |
| — at 220 V rated value                                             | 80 A     |
| — at 440 V rated value                                             | 4.5 A    |
| — at 600 V rated value                                             | 2.6 A    |
| <b>● at 1 current path at DC-3 at DC-5</b>                         |          |
| — at 24 V rated value                                              | 40 A     |
| — at 60 V rated value                                              | 6 A      |
| — at 110 V rated value                                             | 2.5 A    |
| — at 220 V rated value                                             | 1 A      |
| — at 440 V rated value                                             | 0.15 A   |
| — at 600 V rated value                                             | 0.06 A   |
| <b>● with 2 current paths in series at DC-3 at DC-5</b>            |          |
| — at 24 V rated value                                              | 100 A    |
| — at 60 V rated value                                              | 100 A    |
| — at 110 V rated value                                             | 100 A    |
| — at 220 V rated value                                             | 7 A      |
| — at 440 V rated value                                             | 0.42 A   |
| — at 600 V rated value                                             | 0.16 A   |
| <b>● with 3 current paths in series at DC-3 at DC-5</b>            |          |
| — at 24 V rated value                                              | 100 A    |
| — at 60 V rated value                                              | 100 A    |
| — at 110 V rated value                                             | 100 A    |
| — at 220 V rated value                                             | 35 A     |
| — at 440 V rated value                                             | 0.8 A    |
| — at 600 V rated value                                             | 0.35 A   |
| <b>operating power</b>                                             |          |
| ● at AC-2 at 400 V rated value                                     | 55 kW    |
| ● at AC-3                                                          |          |
| — at 230 V rated value                                             | 30 kW    |
| — at 400 V rated value                                             | 55 kW    |
| — at 500 V rated value                                             | 75 kW    |
| — at 690 V rated value                                             | 90 kW    |
| — at 1000 V rated value                                            | 37 kW    |
| ● at AC-3e                                                         |          |
| — at 230 V rated value                                             | 30 kW    |
| — at 400 V rated value                                             | 55 kW    |
| — at 500 V rated value                                             | 75 kW    |
| — at 690 V rated value                                             | 90 kW    |
| — at 1000 V rated value                                            | 37 kW    |
| <b>operating power for approx. 200000 operating cycles at AC-4</b> |          |
| ● at 400 V rated value                                             | 24.3 kW  |
| ● at 690 V rated value                                             | 32.9 kW  |
| <b>operating apparent power at AC-6a</b>                           |          |
| ● up to 230 V for current peak value n=20 rated value              | 39 kVA   |
| ● up to 400 V for current peak value n=20 rated value              | 67 kVA   |
| ● up to 500 V for current peak value n=20 rated value              | 84 kVA   |
| ● up to 690 V for current peak value n=20 rated value              | 117 kVA  |
| <b>operating apparent power at AC-6a</b>                           |          |
| ● up to 230 V for current peak value n=30 rated value              | 26 kVA   |
| ● up to 400 V for current peak value n=30 rated value              | 45.2 kVA |
| ● up to 500 V for current peak value n=30 rated value              | 56.5 kVA |
| ● up to 690 V for current peak value n=30 rated value              | 78 kVA   |

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| <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>    | 1 960 A; Use minimum cross-section acc. to AC-1 rated value<br>1 502 A; Use minimum cross-section acc. to AC-1 rated value<br>1 095 A; Use minimum cross-section acc. to AC-1 rated value<br>707 A; Use minimum cross-section acc. to AC-1 rated value<br>562 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>                                                                                                                                                                                                                                                                                 | 1 000 1/h<br>1 000 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>                                                                                                                                                                           | 900 1/h<br>350 1/h<br>850 1/h<br>850 1/h<br>200 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>                                                                                                                                                                                                                                                   | 20 ... 33 V<br>20 ... 33 V                                                                                                                                                                                                                                                                                          |
| <b>control supply voltage at DC rated value</b>                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                     |
| •                                                                                                                                                                                                                                                                                                                                                          | 20 ... 33 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>inrush current peak</b>                                                                                                                                                                                                                                                                                                                                 | 6.5 A                                                                                                                                                                                                                                                                                                               |
| <b>duration of inrush current peak</b>                                                                                                                                                                                                                                                                                                                     | 50 µs                                                                                                                                                                                                                                                                                                               |
| <b>locked-rotor current mean value</b>                                                                                                                                                                                                                                                                                                                     | 3.2 A                                                                                                                                                                                                                                                                                                               |
| <b>locked-rotor current peak</b>                                                                                                                                                                                                                                                                                                                           | 6.5 A                                                                                                                                                                                                                                                                                                               |
| <b>duration of locked-rotor current</b>                                                                                                                                                                                                                                                                                                                    | 150 ms                                                                                                                                                                                                                                                                                                              |
| <b>holding current mean value</b>                                                                                                                                                                                                                                                                                                                          | 75 mA                                                                                                                                                                                                                                                                                                               |
| <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>                                                                                                                                                                                                                                                                           | 151 VA<br>151 VA                                                                                                                                                                                                                                                                                                    |
| <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>                                                                                                                                                                                                 | 1.8 VA<br>1.8 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> <li>— at 60 Hz</li> </ul> </li> </ul> | 3.1 VA<br>3.1 VA<br>3.1 VA<br>3.1 VA                                                                                                                                                                                                                                                                                |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 3.1 VA<br>3.1 VA                                                                                                                                                                                                                                                                                                    |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                           | 0.95<br>0.95                                                                                                                                                                                                                                                                                                        |
| <b>closing power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                  | 76 W                                                                                                                                                                                                                                                                                                                |
| <b>holding power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                                                  | 1.8 W                                                                                                                                                                                                                                                                                                               |
| <b>closing delay</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                 | 50 ... 70 ms<br>50 ... 70 ms                                                                                                                                                                                                                                                                                        |

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| <b>opening delay</b>                                               |                                                                                                                                      |
| • at AC                                                            | 38 ... 57 ms                                                                                                                         |
| • at DC                                                            | 38 ... 57 ms                                                                                                                         |
| <b>arcing time</b>                                                 | 10 ... 20 ms                                                                                                                         |
| <b>control version of the switch operating mechanism</b>           | Standard A1 - A2                                                                                                                     |
| <b>Auxiliary circuit</b>                                           |                                                                                                                                      |
| number of NC contacts for auxiliary contacts instantaneous contact | 1                                                                                                                                    |
| number of NO contacts for auxiliary contacts instantaneous contact | 1                                                                                                                                    |
| operational current at AC-12 maximum                               | 10 A                                                                                                                                 |
| <b>operational current at AC-15</b>                                |                                                                                                                                      |
| • at 230 V rated value                                             | 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                                             | 96 A                                                                                                                                 |
| • at 600 V rated value                                             | 99 A                                                                                                                                 |
| <b>yielded mechanical performance [hp]</b>                         |                                                                                                                                      |
| • for single-phase AC motor                                        |                                                                                                                                      |
| — at 110/120 V rated value                                         | 10 hp                                                                                                                                |
| — at 230 V rated value                                             | 20 hp                                                                                                                                |
| • for 3-phase AC motor                                             |                                                                                                                                      |
| — at 200/208 V rated value                                         | 30 hp                                                                                                                                |
| — at 220/230 V rated value                                         | 40 hp                                                                                                                                |
| — at 460/480 V rated value                                         | 75 hp                                                                                                                                |
| — at 575/600 V rated value                                         | 100 hp                                                                                                                               |
| <b>contact rating of auxiliary contacts according to UL</b>        | A600 / P600                                                                                                                          |
| <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: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)                                                     |
| — with type of assignment 2 required                               | gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A (415V,80kA)                                                                 |
| • for short-circuit protection of the auxiliary switch required    | gG: 10 A (500 V, 1 kA)                                                                                                               |
| <b>Installation/ mounting/ dimensions</b>                          |                                                                                                                                      |
| <b>mounting position</b>                                           | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>fastening method</b>                                            | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                      | 140 mm                                                                                                                               |
| <b>width</b>                                                       | 70 mm                                                                                                                                |
| <b>depth</b>                                                       | 152 mm                                                                                                                               |
| <b>required spacing</b>                                            |                                                                                                                                      |

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| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> |
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### Connections/ Terminals

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| <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>                                                                    | <p>screw-type terminals</p> <p>screw-type terminals</p> <p>Screw-type terminals</p> <p>Screw-type terminals</p>                                                                         |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for main contacts</li> </ul>                                        | <p>2x (2.5 ... 35 mm<sup>2</sup>), 1x (2.5 ... 50 mm<sup>2</sup>)</p> <p>2x (10 ... 1/0), 1x (10 ... 2)</p>                                                                             |
| <b>connectable conductor cross-section for main contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> </ul>                                                                                                             | <p>2.5 ... 16 mm<sup>2</sup></p> <p>6 ... 70 mm<sup>2</sup></p> <p>2.5 ... 50 mm<sup>2</sup></p>                                                                                        |
| <b>connectable conductor cross-section for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>                                                                                                                | <p>0.5 ... 2.5 mm<sup>2</sup></p> <p>0.5 ... 2.5 mm<sup>2</sup></p>                                                                                                                     |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul> | <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p> |
| <b>AWG number as coded connectable conductor cross section</b> <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary contacts</li> </ul>                                                                                                                                     | <p>10 ... 2</p> <p>20 ... 14</p>                                                                                                                                                        |

### Safety related data

|                                                                                                                                                                                               |                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>product function</b> <ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> </ul>       | <p>Yes</p> <p>No</p>                               |
| suitability for use safety-related switching OFF                                                                                                                                              | Yes; applies only to contactor operating mechanism |
| <b>stop category according to IEC 60204-1</b>                                                                                                                                                 | 0                                                  |
| <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> | <p>40 %</p> <p>73 %</p>                            |
| <b>B10 value with high demand rate according to SN 31920</b>                                                                                                                                  | 1 000 000                                          |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>                                                                                                                          | 100 FIT                                            |
| <b>MTBF</b>                                                                                                                                                                                   | 75 a                                               |
| <b>IEC 62061</b>                                                                                                                                                                              |                                                    |
| PFHD with high demand rate according to IEC 62061                                                                                                                                             | 4.5E-7 1/h                                         |
| <b>ISO 13849</b>                                                                                                                                                                              |                                                    |
| performance level (PL) according to EN ISO 13849-1                                                                                                                                            | c                                                  |
| category according to EN ISO 13849-1                                                                                                                                                          | 2                                                  |
| <b>IEC 61508</b>                                                                                                                                                                              |                                                    |
| PFDavg with low demand rate according to IEC 61508                                                                                                                                            | 0.007                                              |

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| hardware fault tolerance according to IEC 61508                                     | 0    |
| <b>T1 value</b><br>• for proof test interval or service life according to IEC 61508 | 20 a |

|                                                         |                                                  |
|---------------------------------------------------------|--------------------------------------------------|
| <b>Electrical Safety</b>                                |                                                  |
| protection class IP on the front according to IEC 60529 | IP20                                             |
| touch protection on the front according to IEC 60529    | finger-safe, for vertical contact from the front |

**Approvals Certificates**

**General Product Approval**



[Confirmation](#)



|                                 |            |                          |                          |
|---------------------------------|------------|--------------------------|--------------------------|
| <b>General Product Approval</b> | <b>EMV</b> | <b>Functional Safety</b> | <b>Test Certificates</b> |
|---------------------------------|------------|--------------------------|--------------------------|

[KC](#)



[Type Examination Certificate](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

**Marine / Shipping**



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

[Confirmation](#)

[Special Test Certificate](#)

[Transport Information](#)



[Environmental Confirmations](#)

**Further information**

Information on the packaging

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

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2047-1NB30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1NB30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1NB30>

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

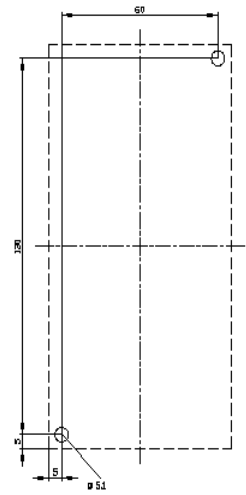
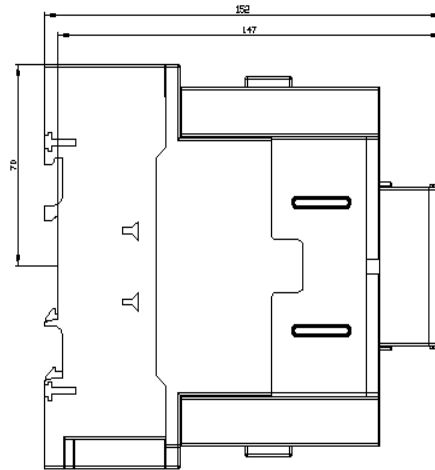
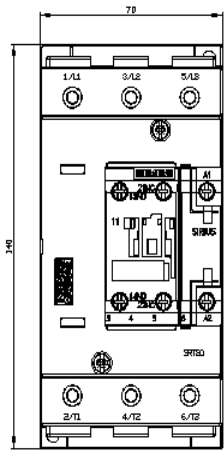
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2047-1NB30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2047-1NB30&lang=en)

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

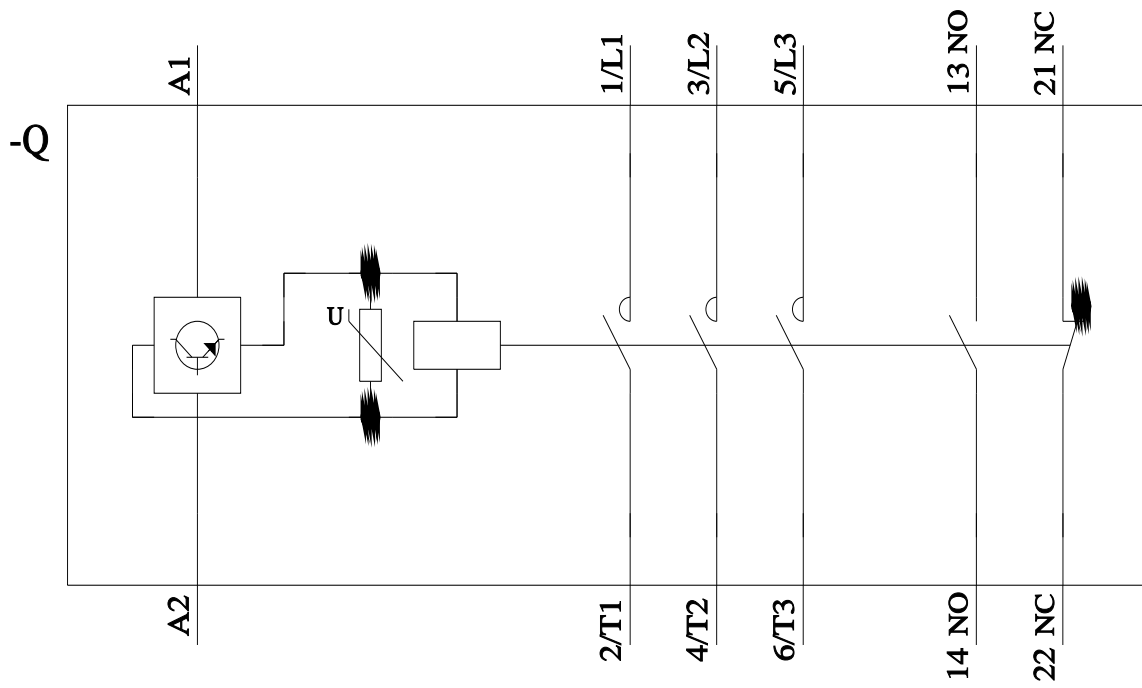
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1NB30/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1NB30&objecttype=14&gridview=view1>







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3/15/2024