



power contactor, AC-3e/AC-3, 41 A, 18.5 kW / 400 V, 3-pole, 21-33 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NC, screw terminal, size: S2, F-PLC-IN

|                                                                                                              |                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                           | SIRIUS                                                                                                                                                                             |
| product designation                                                                                          | Power contactor                                                                                                                                                                    |
| product type designation                                                                                     | 3RT2                                                                                                                                                                               |
| <b>General technical data</b>                                                                                |                                                                                                                                                                                    |
| size of contactor                                                                                            | S2                                                                                                                                                                                 |
| product extension                                                                                            |                                                                                                                                                                                    |
| • function module for communication                                                                          | No                                                                                                                                                                                 |
| • auxiliary switch                                                                                           | Yes                                                                                                                                                                                |
| power loss [W] for rated value of the current                                                                |                                                                                                                                                                                    |
| • at AC in hot operating state                                                                               | 6.6 W                                                                                                                                                                              |
| • at AC in hot operating state per pole                                                                      | 2.2 W                                                                                                                                                                              |
| • without load current share typical                                                                         | 1.6 W                                                                                                                                                                              |
| type of calculation of power loss current-dependent                                                          | quadratic                                                                                                                                                                          |
| insulation voltage                                                                                           |                                                                                                                                                                                    |
| • of main circuit with degree of pollution 3 rated value                                                     | 690 V                                                                                                                                                                              |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                                                                                                                                                                              |
| surge voltage resistance                                                                                     |                                                                                                                                                                                    |
| • of main circuit rated value                                                                                | 6 kV                                                                                                                                                                               |
| • of auxiliary circuit rated value                                                                           | 6 kV                                                                                                                                                                               |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V                                                                                                                                                                              |
| shock resistance at rectangular impulse                                                                      |                                                                                                                                                                                    |
| • at AC                                                                                                      | 7.7 g / 5 ms, 4.5 g / 10 ms                                                                                                                                                        |
| • at DC                                                                                                      | 7.7 g / 5 ms, 4.5 g / 10 ms                                                                                                                                                        |
| shock resistance with sine pulse                                                                             |                                                                                                                                                                                    |
| • at AC                                                                                                      | 12 g / 5 ms, 7 g / 10 ms                                                                                                                                                           |
| • at DC                                                                                                      | 12 g / 5 ms, 7 g / 10 ms                                                                                                                                                           |
| mechanical service life (operating cycles)                                                                   |                                                                                                                                                                                    |
| • of contactor typical                                                                                       | 5 000 000                                                                                                                                                                          |
| • of the contactor with added electronically optimized auxiliary switch block typical                        | 5 000 000                                                                                                                                                                          |
| • of the contactor with added auxiliary switch block typical                                                 | 5 000 000                                                                                                                                                                          |
| reference code according to IEC 81346-2                                                                      | Q                                                                                                                                                                                  |
| Substance Prohibitance (day/month/year)                                                                      | 01/29/2021                                                                                                                                                                         |
| SVHC substance name                                                                                          | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1 |
| Net Weight                                                                                                   | 1.118 kg                                                                                                                                                                           |
| <b>Ambient conditions</b>                                                                                    |                                                                                                                                                                                    |

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|------------------------------------------------------------------------|--------------------|
| 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>Main circuit</b>                                                    |                    |
| <b>number of poles for main current circuit</b>                        | 3                  |
| <b>number of NO contacts for main contacts</b>                         | 3                  |
| <b>number of NC contacts for main contacts</b>                         | 0                  |
| <b>operating voltage</b>                                               |                    |
| • at AC-3 rated value maximum                                          | 690 V              |
| • at AC-3e rated value maximum                                         | 690 V              |
| <b>operational current</b>                                             |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 60 A               |
| • at AC-1                                                              |                    |
| — up to 690 V at ambient temperature 40 °C rated value                 | 60 A               |
| — up to 690 V at ambient temperature 60 °C rated value                 | 55 A               |
| • at AC-3                                                              |                    |
| — at 400 V rated value                                                 | 41 A               |
| — at 500 V rated value                                                 | 41 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-3e                                                             |                    |
| — at 400 V rated value                                                 | 41 A               |
| — at 500 V rated value                                                 | 41 A               |
| — at 690 V rated value                                                 | 24 A               |
| • at AC-4 at 400 V rated value                                         | 35 A               |
| • at AC-5a up to 690 V rated value                                     | 52.8 A             |
| • at AC-5b up to 400 V rated value                                     | 33.2 A             |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=20 rated value                  | 36.5 A             |
| — up to 400 V for current peak value n=20 rated value                  | 36.5 A             |
| — up to 500 V for current peak value n=20 rated value                  | 36.5 A             |
| — up to 690 V for current peak value n=20 rated value                  | 24 A               |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 24.2 A             |
| — up to 400 V for current peak value n=30 rated value                  | 24.2 A             |
| — up to 500 V for current peak value n=30 rated value                  | 24.2 A             |
| — up to 690 V for current peak value n=30 rated value                  | 24 A               |
| minimum cross-section in main circuit at maximum AC-1 rated value      | 16 mm <sup>2</sup> |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> |                    |
| • at 400 V rated value                                                 | 22 A               |
| • at 690 V rated value                                                 | 18.5 A             |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 55 A               |
| — at 60 V rated value                                                  | 23 A               |
| — at 110 V rated value                                                 | 4.5 A              |
| — at 220 V rated value                                                 | 1 A                |
| — at 440 V rated value                                                 | 0.4 A              |
| — at 600 V rated value                                                 | 0.25 A             |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 55 A               |
| — at 60 V rated value                                                  | 45 A               |
| — at 110 V rated value                                                 | 45 A               |

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| <ul style="list-style-type: none"> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                           | 5 A<br>1 A<br>0.8 A                                                                                                    |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                                                                                                                 | 55 A<br>55 A<br>55 A<br>45 A<br>2.9 A<br>1.4 A                                                                         |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                      | 35 A<br>6 A<br>1 A<br>0.1 A<br>0.06 A                                                                                  |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                                                                                                         | 55 A<br>45 A<br>25 A<br>5 A<br>0.27 A<br>0.16 A                                                                        |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                                                                                                         | 55 A<br>55 A<br>55 A<br>25 A<br>0.6 A<br>0.35 A                                                                        |
| <b>operating power</b> <ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul> | 18.5 kW<br><br>11 kW<br>18.5 kW<br>22 kW<br>22 kW<br><br>11 kW<br>18.5 kW<br>22 kW<br>22 kW                            |
| <b>operating power for approx. 200000 operating cycles at AC-4</b> <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                        | 11.6 kW<br>16.8 kW                                                                                                     |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>• up to 400 V for current peak value n=20 rated value</li> <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> </ul>                                                                                                                                                                                                                     | 25.2 kVA<br>31.6 kVA<br>28.6 kVA                                                                                       |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>• up to 230 V for current peak value n=30 rated value</li> <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> </ul>                                                                                                                                                      | 9.6 kVA<br>16.8 kVA<br>21 kVA<br>28.6 kVA                                                                              |
| <b>short-time withstand current in cold operating state up to 40 °C</b> <ul style="list-style-type: none"> <li>• limited to 1 s switching at zero current maximum</li> <li>• limited to 5 s switching at zero current maximum</li> </ul>                                                                                                                                                                                                                                                           | 843 A; Use minimum cross-section acc. to AC-1 rated value<br>596 A; Use minimum cross-section acc. to AC-1 rated value |

|                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                     |
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| <ul style="list-style-type: none"> <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>                                                                                                | 400 A; Use minimum cross-section acc. to AC-1 rated value<br>241 A; Use minimum cross-section acc. to AC-1 rated value<br>196 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 <ul style="list-style-type: none"> <li>— maximum</li> </ul> </li> <li>• at AC-4 maximum</li> </ul>                                                                                          | 1 000 1/h<br>750 1/h<br>1 000 1/h<br>1 000 1/h<br>300 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>                                                                                                                                                                                                                       | 21 ... 33 V<br>21 ... 33 V                                                                                                                                                          |
| <b>control supply voltage at DC rated value</b>                                                                                                                                                                                                                                                                                | 21 ... 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>type of PLC-control input according to IEC 60947-1</b>                                                                                                                                                                                                                                                                      | Type 1                                                                                                                                                                              |
| <b>consumed current at PLC-control input according to IEC 60947-1 maximum</b>                                                                                                                                                                                                                                                  | 11 mA                                                                                                                                                                               |
| <b>voltage at PLC-control input rated value</b>                                                                                                                                                                                                                                                                                | 24 V                                                                                                                                                                                |
| <b>operating range factor of the voltage at PLC-control input</b>                                                                                                                                                                                                                                                              | 0.8 ... 1.1                                                                                                                                                                         |
| <b>design of the surge suppressor</b>                                                                                                                                                                                                                                                                                          | with varistor                                                                                                                                                                       |
| <b>inrush current peak</b>                                                                                                                                                                                                                                                                                                     | 2.2 A                                                                                                                                                                               |
| <b>duration of inrush current peak</b>                                                                                                                                                                                                                                                                                         | 100 µs                                                                                                                                                                              |
| <b>pickup current mean value</b>                                                                                                                                                                                                                                                                                               | 1.6 A                                                                                                                                                                               |
| <b>pickup current peak</b>                                                                                                                                                                                                                                                                                                     | 2.6 A                                                                                                                                                                               |
| <b>duration of pickup current</b>                                                                                                                                                                                                                                                                                              | 230 ms                                                                                                                                                                              |
| <b>holding current mean value</b>                                                                                                                                                                                                                                                                                              | 0.075 A                                                                                                                                                                             |
| <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>                                                                                                                                                                                                                                               | 40 VA<br>40 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>                                                                                                                                                                     | 2 VA<br>2 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> | 2 VA<br>2 VA<br>2 VA<br>2 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>                                                                                                                                                                                                                                               | 2 VA<br>2 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>                                                                                                                                                                                                                                                                                      | 40 W                                                                                                                                                                                |
| <b>holding power of magnet coil at DC</b>                                                                                                                                                                                                                                                                                      | 1.6 W                                                                                                                                                                               |

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| <b>closing delay</b>                                                                                      |                                                                                 |
| • at AC                                                                                                   | 35 ... 110 ms                                                                   |
| • at DC                                                                                                   | 35 ... 110 ms                                                                   |
| <b>opening delay</b>                                                                                      |                                                                                 |
| • at AC                                                                                                   | 30 ... 55 ms                                                                    |
| • at DC                                                                                                   | 30 ... 55 ms                                                                    |
| <b>recovery time after power failure typical</b>                                                          | 2.1 s                                                                           |
| <b>arcing time</b>                                                                                        | 10 ... 20 ms                                                                    |
| <b>control version of the switch operating mechanism</b>                                                  | Fail-safe PLC input (F-PLC-IN)                                                  |
| <b>Auxiliary circuit</b>                                                                                  |                                                                                 |
| number of NC contacts for auxiliary contacts instantaneous contact                                        | 1                                                                               |
| number of NO contacts for auxiliary contacts instantaneous contact                                        | 0                                                                               |
| operational current at AC-12 maximum                                                                      | 10 A                                                                            |
| <b>operational current at AC-15</b>                                                                       |                                                                                 |
| • at 230 V rated value                                                                                    | 10 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                                                                                    | 40 A                                                                            |
| • at 600 V rated value                                                                                    | 41 A                                                                            |
| <b>yielded mechanical performance [hp]</b>                                                                |                                                                                 |
| • for single-phase AC motor                                                                               |                                                                                 |
| — at 110/120 V rated value                                                                                | 3 hp                                                                            |
| — at 230 V rated value                                                                                    | 7.5 hp                                                                          |
| • for 3-phase AC motor                                                                                    |                                                                                 |
| — at 200/208 V rated value                                                                                | 10 hp                                                                           |
| — at 220/230 V rated value                                                                                | 15 hp                                                                           |
| — at 460/480 V rated value                                                                                | 30 hp                                                                           |
| — at 575/600 V rated value                                                                                | 40 hp                                                                           |
| <b>contact rating of auxiliary contacts according to UL</b>                                               | A600 / P600                                                                     |
| <b>Short-circuit protection</b>                                                                           |                                                                                 |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA                                                  |
| <b>design of the fuse link</b>                                                                            |                                                                                 |
| • for short-circuit protection of the main circuit                                                        |                                                                                 |
| — with type of coordination 1 required                                                                    | gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) |
| — with type of coordination 2 required                                                                    | gG: 80 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 63 A (415 V, 80 kA)   |
| • for short-circuit protection of the auxiliary switch required                                           | gG: 10 A (500 V, 1 kA)                                                          |

| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                      |
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| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| fastening method side-by-side mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes                                                                                                                                  |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 114 mm                                                                                                                               |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 55 mm                                                                                                                                |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 130 mm                                                                                                                               |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 10 mm<br>10 mm<br>10 mm<br>0 mm<br><br>10 mm<br>10 mm<br>6 mm<br>10 mm<br><br>10 mm<br>10 mm<br>10 mm<br>6 mm                        |
| Connections/ Terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                      |
| <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>                                                                                                                                                                                                                                                                                                                            | screw-type terminals<br>screw-type terminals<br>Screw-type terminals<br>Screw-type terminals                                         |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for main contacts</li> </ul>                                                                                                                                                                                                                                                                                  | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)<br>2x (1 ... 25 mm²), 1x (1 ... 35 mm²)<br>2x (18 ... 2), 1x (18 ... 1)                         |
| <b>connectable conductor cross-section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 ... 35 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> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     | 0.5 ... 2.5 mm²<br>0.5 ... 2.5 mm²                                                                                                   |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>                                                                                                                                                                                                                                                                        | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14)         |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 18 ... 1                                                                                                                             |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20 ... 14                                                                                                                            |
| Safety related data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <b>product function</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> <li>• suitable for safety function</li> </ul>                                                                                                                                                                                                                                                                                                                       | Yes<br>No<br>Yes                                                                                                                     |
| suitability for use safety-related switching OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                                                                                                                  |
| <b>safe state</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | off                                                                                                                                  |
| <b>test wear-related service life necessary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                                  |
| <b>diagnostics test interval by internal test function maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 28 800 s                                                                                                                             |
| <b>stop category according to IEC 60204-1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0                                                                                                                                    |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                      |

|                                                                      |                                                  |
|----------------------------------------------------------------------|--------------------------------------------------|
| • with low demand rate according to SN 31920                         | 40 %                                             |
| • with high demand rate according to SN 31920                        | 73 %                                             |
| <b>B10 value with high demand rate according to SN 31920</b>         | 1 000 000                                        |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b> | 100 FIT                                          |
| <b>MTBF</b>                                                          | 52 a                                             |
| <b>IEC 62061</b>                                                     |                                                  |
| <b>Safety Integrity Level (SIL) according to IEC 62061</b>           | SIL 2                                            |
| PFHD with high demand rate according to IEC 62061                    | 7.7E-8 1/h                                       |
| <b>ISO 13849</b>                                                     |                                                  |
| <b>performance level (PL) according to ISO 13849-1</b>               | PL c                                             |
| <b>category according to ISO 13849-1</b>                             | 2                                                |
| <b>device type according to ISO 13849-1</b>                          | 1                                                |
| <b>overdimensioning according to ISO 13849-2 necessary</b>           | Yes                                              |
| <b>IEC 61508</b>                                                     |                                                  |
| Safety Integrity Level (SIL) according to IEC 61508                  | 2                                                |
| <b>safety device type according to IEC 61508-2</b>                   | Type B                                           |
| <b>PFHD with high demand rate according to IEC 61508</b>             | 7.7E-8 1/h                                       |
| PFDavg with low demand rate according to IEC 61508                   | 0.0067                                           |
| <b>Safe failure fraction (SFF)</b>                                   | 96 %                                             |
| hardware fault tolerance according to IEC 61508                      | 0                                                |
| T1 value of service life according to IEC 61508                      | 20 a                                             |
| <b>Electrical Safety</b>                                             |                                                  |
| <b>protection class IP on the front according to IEC 60529</b>       | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>          | finger-safe, for vertical contact from the front |
| <b>Approvals Certificates</b>                                        |                                                  |
| <b>Environment</b>                                                   | <b>General Product Approval</b>                  |

[Environmental Confirmations](#)



|                                                                                     |                                                                                     |                                                                                     |                                              |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------|
| <b>General Product Approval</b>                                                     | <b>EMV</b>                                                                          | <b>Functional Safety</b>                                                            | <b>Test Certificates</b>                     | <b>Maritime application</b>                                                           |
|  |  |  | <a href="#">Type Examination Certificate</a> | <a href="#">Type Test Certificates/Test Report</a>                                    |
| EG-Konf.                                                                            |                                                                                     | RCM                                                                                 |                                              |  |
| <b>Maritime application</b>                                                         |                                                                                     |                                                                                     | <b>other</b>                                 |                                                                                       |



[Confirmation](#)



|                |
|----------------|
| <b>Railway</b> |
|----------------|

[Special Test Certificate](#)

|                            |
|----------------------------|
| <b>Further information</b> |
|----------------------------|

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>  
Information for data generation and storage  
<https://support.industry.siemens.com/cs/ww/en/view/109995012>  
Information- and Downloadcenter (Catalogs, Brochures,...)  
<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2035-1SB30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-1SB30>

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

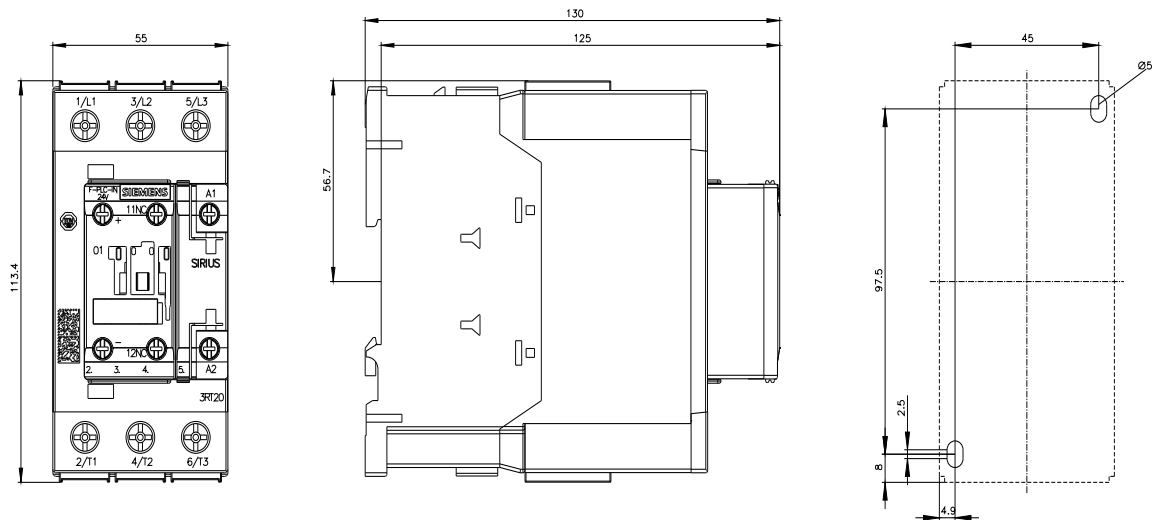
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2035-1SB30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2035-1SB30&lang=en)

Cax online generator

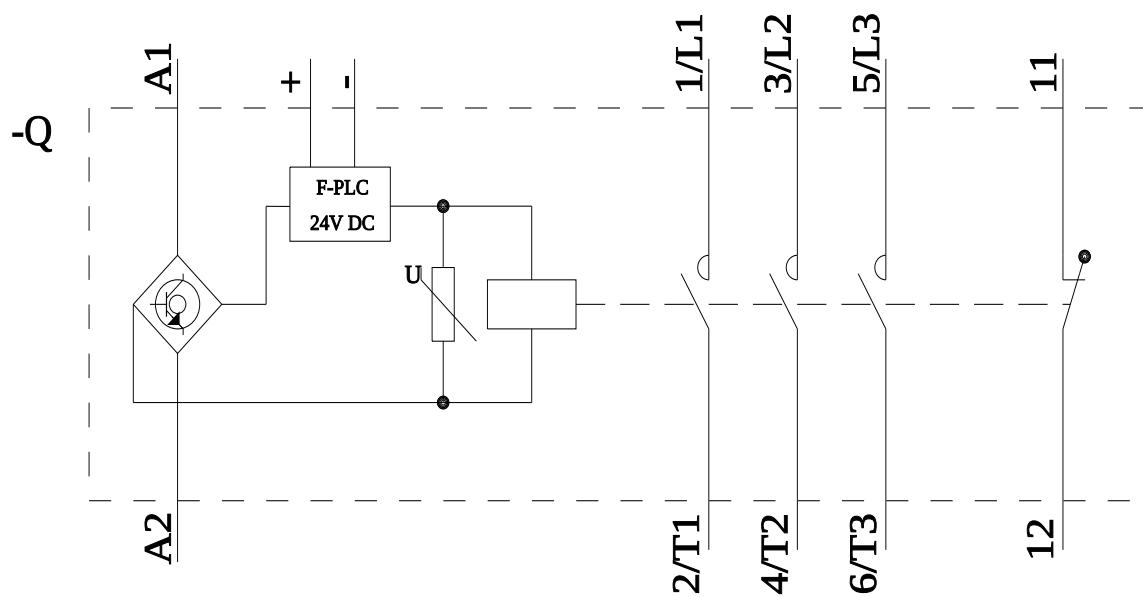
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2035-1SB30>

Characteristic curves

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







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