



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 230 V AC, 50 Hz,  
auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2, upright mounting position

|                                                                                                              |                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------|
| 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                                                                               | 17.1 W                      |
| • at AC in hot operating state per pole                                                                      | 5.7 W                       |
| • without load current share typical                                                                         | 6 W                         |
| type of calculation of power loss depending on pole                                                          | quadratic                   |
| insulation voltage                                                                                           |                             |
| • of main circuit with degree of pollution 3 rated value                                                     | 690 V                       |
| • of auxiliary circuit with degree of pollution 3 rated value                                                | 690 V                       |
| surge voltage resistance                                                                                     |                             |
| • of main circuit rated value                                                                                | 6 kV                        |
| • of auxiliary circuit rated value                                                                           | 6 kV                        |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V                       |
| shock resistance at rectangular impulse                                                                      |                             |
| • at AC                                                                                                      | 11.8g / 5 ms, 7.4g / 10 ms  |
| shock resistance with sine pulse                                                                             |                             |
| • at AC                                                                                                      | 18.5g / 5 ms, 11.6g / 10 ms |
| mechanical service life (operating cycles)                                                                   |                             |
| • of contactor typical                                                                                       | 10 000 000                  |
| • of the contactor with added electronically optimized auxiliary switch block typical                        | 5 000 000                   |
| • of the contactor with added auxiliary switch block typical                                                 | 10 000 000                  |
| reference code according to IEC 81346-2                                                                      | Q                           |
| Substance Prohibitance (Date)                                                                                | 10/01/2014                  |
| Weight                                                                                                       | 0.98 kg                     |
| <b>Ambient conditions</b>                                                                                    |                             |
| installation altitude at height above sea level maximum                                                      | 2 000 m                     |
| ambient temperature                                                                                          |                             |
| • during operation                                                                                           | -25 ... +60 °C              |
| • during storage                                                                                             | -55 ... +80 °C              |
| relative humidity minimum                                                                                    | 10 %                        |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum                                               | 95 %                        |

| Main circuit                                                      |                    |
|-------------------------------------------------------------------|--------------------|
| number of poles for main current circuit                          | 3                  |
| number of NO contacts for main contacts                           | 3                  |
| operating voltage                                                 |                    |
| • at AC-3 rated value maximum                                     | 690 V              |
| • at AC-3e rated value maximum                                    | 690 V              |
| operational current                                               |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value       | 90 A               |
| • at AC-1                                                         |                    |
| — up to 690 V at ambient temperature 40 °C rated value            | 90 A               |
| — up to 690 V at ambient temperature 60 °C rated value            | 80 A               |
| • at AC-3                                                         |                    |
| — at 400 V rated value                                            | 80 A               |
| — at 500 V rated value                                            | 80 A               |
| — at 690 V rated value                                            | 58 A               |
| • at AC-3e                                                        |                    |
| — at 400 V rated value                                            | 80 A               |
| — at 500 V rated value                                            | 80 A               |
| — at 690 V rated value                                            | 58 A               |
| • at AC-4 at 400 V rated value                                    | 55 A               |
| • at AC-5a up to 690 V rated value                                | 79.2 A             |
| • at AC-5b up to 400 V rated value                                | 66.4 A             |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=20 rated value             | 70 A               |
| — up to 400 V for current peak value n=20 rated value             | 70 A               |
| — up to 500 V for current peak value n=20 rated value             | 70 A               |
| — up to 690 V for current peak value n=20 rated value             | 58 A               |
| • at AC-6a                                                        |                    |
| — up to 230 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 400 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 500 V for current peak value n=30 rated value             | 46.7 A             |
| — up to 690 V for current peak value n=30 rated value             | 46.7 A             |
| minimum cross-section in main circuit at maximum AC-1 rated value | 35 mm <sup>2</sup> |
| operational current for approx. 200000 operating cycles at AC-4   |                    |
| • at 400 V rated value                                            | 30 A               |
| • at 690 V rated value                                            | 24 A               |
| operational current                                               |                    |
| • at 1 current path at DC-1                                       |                    |
| — at 24 V rated value                                             | 55 A               |
| — at 60 V rated value                                             | 23 A               |
| — at 110 V rated value                                            | 4.5 A              |
| — at 220 V rated value                                            | 1 A                |
| — at 440 V rated value                                            | 0.4 A              |
| — at 600 V rated value                                            | 0.25 A             |
| • with 2 current paths in series at DC-1                          |                    |
| — at 24 V rated value                                             | 55 A               |
| — at 60 V rated value                                             | 45 A               |
| — at 110 V rated value                                            | 45 A               |
| — at 220 V rated value                                            | 5 A                |
| — at 440 V rated value                                            | 1 A                |
| — at 600 V rated value                                            | 0.8 A              |
| • with 3 current paths in series at DC-1                          |                    |
| — at 24 V rated value                                             | 55 A               |
| — at 60 V rated value                                             | 55 A               |
| — at 110 V rated value                                            | 55 A               |
| — at 220 V rated value                                            | 45 A               |
| — at 440 V rated value                                            | 2.9 A              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.4 A                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>● <b>at 1 current path at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>● <b>with 2 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>● <b>with 3 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul> | 35 A<br>6 A<br>1 A<br>0.1 A<br>0.06 A<br><br>55 A<br>45 A<br>25 A<br>5 A<br>0.27 A<br>0.16 A<br><br>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>                                                                                                                                                                                                                                                                                                                                                                                                                     | 37 kW<br><br>22 kW<br>37 kW<br>37 kW<br>45 kW<br><br>22 kW<br>37 kW<br>37 kW<br>45 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 15.8 kW<br>21.8 kW                                                                                                                                                                                                                                                                                              |
| <b>operating apparent power at AC-6a</b> <ul style="list-style-type: none"> <li>● up to 230 V for current peak value n=20 rated value</li> <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 27.8 kVA<br>48.4 kVA<br>60.6 kVA<br>69.3 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 18.6 kVA<br>32.3 kVA<br>40.4 kVA<br>55.8 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> <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1 298 A; Use minimum cross-section acc. to AC-1 rated value<br>898 A; Use minimum cross-section acc. to AC-1 rated value<br>640 A; Use minimum cross-section acc. to AC-1 rated value<br>414 A; Use minimum cross-section acc. to AC-1 rated value<br>333 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> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 5 000 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</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 700 1/h<br>350 1/h<br>500 1/h                                                                                                                                                                                                                                                                                   |

|                                                                                       |                                                 |
|---------------------------------------------------------------------------------------|-------------------------------------------------|
| — maximum                                                                             | 500 1/h                                         |
| • at AC-4 maximum                                                                     | 150 1/h                                         |
| <b>Control circuit/ Control</b>                                                       |                                                 |
| <b>type of voltage of the control supply voltage</b>                                  | AC                                              |
| <b>control supply voltage at AC</b>                                                   |                                                 |
| • at 50 Hz rated value                                                                | 230 V                                           |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> |                                                 |
| • at 50 Hz                                                                            | 0.8 ... 1.1                                     |
| <b>apparent pick-up power of magnet coil at AC</b>                                    |                                                 |
| • at 50 Hz                                                                            | 190 VA                                          |
| <b>inductive power factor with closing power of the coil</b>                          |                                                 |
| • at 50 Hz                                                                            | 0.72                                            |
| <b>apparent holding power of magnet coil at AC</b>                                    |                                                 |
| • at 50 Hz                                                                            | 16 VA                                           |
| <b>inductive power factor with the holding power of the coil</b>                      |                                                 |
| • at 50 Hz                                                                            | 0.37                                            |
| <b>closing delay</b>                                                                  |                                                 |
| • at AC                                                                               | 10 ... 80 ms                                    |
| <b>opening delay</b>                                                                  |                                                 |
| • at AC                                                                               | 10 ... 18 ms                                    |
| <b>arcing time</b>                                                                    | 10 ... 20 ms                                    |
| <b>control version of the switch operating mechanism</b>                              | Standard A1 - A2                                |
| <b>Auxiliary circuit</b>                                                              |                                                 |
| number of NC contacts for auxiliary contacts instantaneous contact                    | 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                                                                | 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                                                                | 65 A                                            |
| • at 600 V rated value                                                                | 62 A                                            |
| <b>yielded mechanical performance [hp]</b>                                            |                                                 |
| • for single-phase AC motor                                                           |                                                 |
| — at 110/120 V rated value                                                            | 5 hp                                            |
| — at 230 V rated value                                                                | 15 hp                                           |
| • for 3-phase AC motor                                                                |                                                 |
| — at 200/208 V rated value                                                            | 20 hp                                           |

|                                                                                                           |                                                                                  |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| — at 220/230 V rated value                                                                                | 25 hp                                                                            |
| — at 460/480 V rated value                                                                                | 50 hp                                                                            |
| — at 575/600 V rated value                                                                                | 60 hp                                                                            |
| <b>contact rating of auxiliary contacts according to UL</b>                                               | A600 / 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: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) |
| — with type of coordination 2 required                                                                    | gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)  |
| • for short-circuit protection of the auxiliary switch required                                           | gG: 10 A (500 V, 1 kA)                                                           |
| <b>Installation/ mounting/ dimensions</b>                                                                 |                                                                                  |
| <b>mounting position</b>                                                                                  | standing, on horizontal 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>                                                                                   |                                                                                  |
| • with side-by-side mounting                                                                              |                                                                                  |
| — forwards                                                                                                | 10 mm                                                                            |
| — upwards                                                                                                 | 10 mm                                                                            |
| — downwards                                                                                               | 10 mm                                                                            |
| — at the side                                                                                             | 0 mm                                                                             |
| • for grounded parts                                                                                      |                                                                                  |
| — forwards                                                                                                | 10 mm                                                                            |
| — upwards                                                                                                 | 10 mm                                                                            |
| — at the side                                                                                             | 6 mm                                                                             |
| — downwards                                                                                               | 10 mm                                                                            |
| • for live parts                                                                                          |                                                                                  |
| — forwards                                                                                                | 10 mm                                                                            |
| — upwards                                                                                                 | 10 mm                                                                            |
| — downwards                                                                                               | 10 mm                                                                            |
| — at the side                                                                                             | 6 mm                                                                             |
| <b>Connections/ Terminals</b>                                                                             |                                                                                  |
| <b>type of electrical connection</b>                                                                      |                                                                                  |
| • for main current circuit                                                                                | screw-type terminals                                                             |
| • for auxiliary and control circuit                                                                       | screw-type terminals                                                             |
| • at contactor for auxiliary contacts                                                                     | Screw-type terminals                                                             |
| • of magnet coil                                                                                          | Screw-type terminals                                                             |
| <b>type of connectable conductor cross-sections</b>                                                       |                                                                                  |
| • for main contacts                                                                                       |                                                                                  |
| — solid or stranded                                                                                       | 2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )                   |
| — finely stranded with core end processing                                                                | 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> )                   |
| • for AWG cables for main contacts                                                                        | 2x (18 ... 2), 1x (18 ... 1)                                                     |
| <b>connectable conductor cross-section for main contacts</b>                                              |                                                                                  |
| • finely stranded with core end processing                                                                | 1 ... 35 mm <sup>2</sup>                                                         |
| <b>connectable conductor cross-section for auxiliary contacts</b>                                         |                                                                                  |
| • solid or stranded                                                                                       | 0.5 ... 2.5 mm <sup>2</sup>                                                      |
| • finely stranded with core end processing                                                                | 0.5 ... 2.5 mm <sup>2</sup>                                                      |
| <b>type of connectable conductor cross-sections</b>                                                       |                                                                                  |
| • for auxiliary contacts                                                                                  |                                                                                  |
| — solid or stranded                                                                                       | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )            |
| — finely stranded with core end processing                                                                | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )            |
| • for AWG cables for auxiliary contacts                                                                   | 2x (20 ... 16), 2x (18 ... 14)                                                   |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>                          | 18 ... 1                                                                         |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>                     | 20 ... 14                                                                        |

## Safety related data

|                                                                      |                                                  |
|----------------------------------------------------------------------|--------------------------------------------------|
| <b>product function</b>                                              |                                                  |
| • mirror contact according to IEC 60947-4-1                          | Yes                                              |
| • positively driven operation according to IEC 60947-5-1             | No                                               |
| • suitable for safety function                                       | Yes                                              |
| suitability for use safety-related switching OFF                     | Yes                                              |
| <b>service life maximum</b>                                          | 20 a                                             |
| <b>test wear-related service life necessary</b>                      | Yes                                              |
| <b>proportion of dangerous failures</b>                              |                                                  |
| • with low demand rate according to SN 31920                         | 40 %                                             |
| • with high demand rate according to SN 31920                        | 73 %                                             |
| <b>B10 value with high demand rate according to SN 31920</b>         | 1 000 000                                        |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b> | 100 FIT                                          |
| <b>ISO 13849</b>                                                     |                                                  |
| <b>device type according to ISO 13849-1</b>                          | 3                                                |
| <b>overdimensioning according to ISO 13849-2 necessary</b>           | Yes                                              |
| <b>IEC 61508</b>                                                     |                                                  |
| <b>safety device type according to IEC 61508-2</b>                   | Type A                                           |
| <b>Electrical Safety</b>                                             |                                                  |
| <b>protection class IP on the front according to IEC 60529</b>       | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>          | finger-safe, for vertical contact from the front |

## Approvals Certificates

### General Product Approval



KC



| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|
|-----|-------------------|----------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



| Maritime application | other |
|----------------------|-------|
|----------------------|-------|



[Confirmation](#)

| other | Railway | Dangerous goods | Environment |
|-------|---------|-----------------|-------------|
|-------|---------|-----------------|-------------|

[Confirmation](#)

[Special Test Certificate](#)

[Transport Information](#)

[Environmental Conformations](#)

## Further information

Information on the packaging

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

Information for data generation and storage

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

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2038-1AP00-1AA0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1AP00-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AP00-1AA0>

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

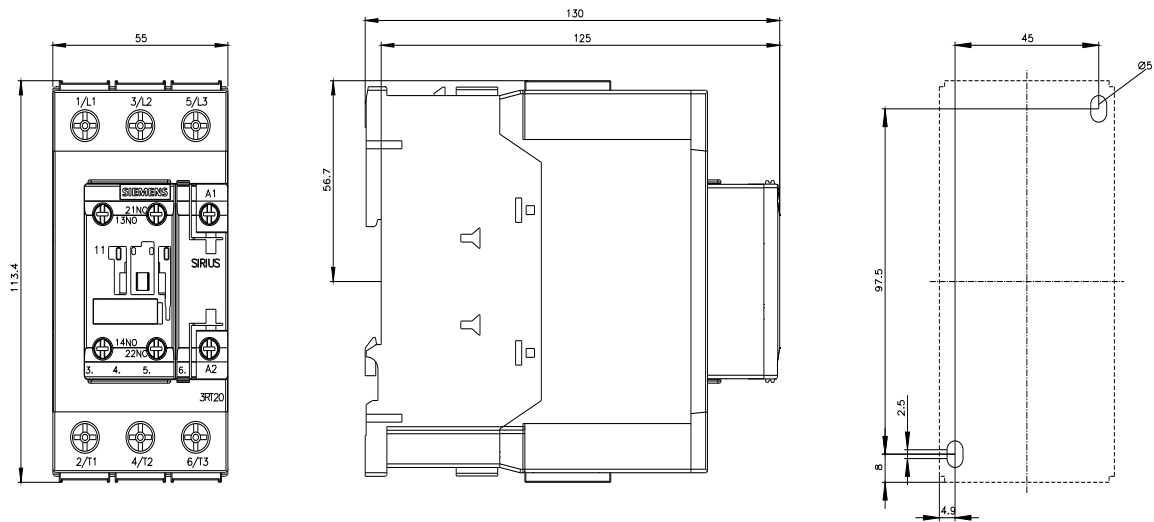
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2038-1AP00-1AA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-1AP00-1AA0&lang=en)

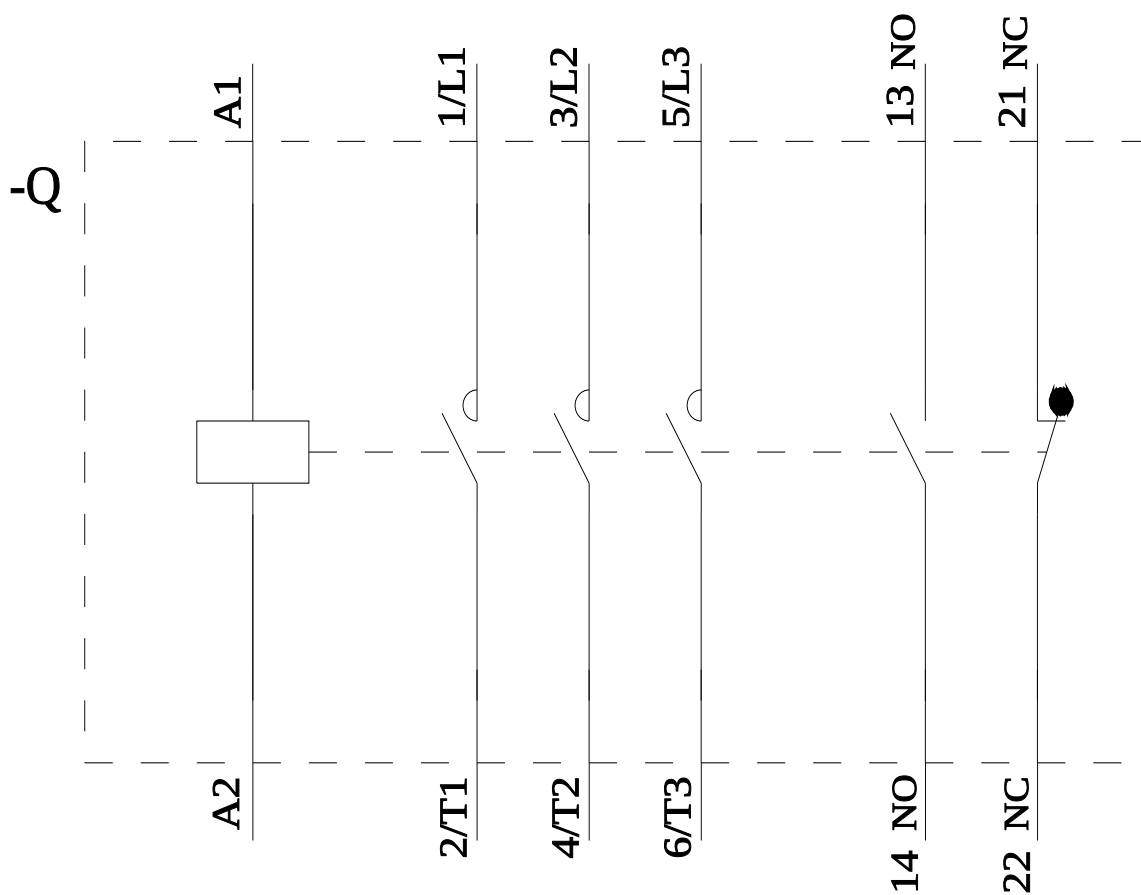
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AP00-1AA0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1AP00-1AA0&objecttype=14&gridview=view1>





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