



power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 480 V AC, 60 Hz, 3-pole, Size S0 screw terminal

|  |                            |
|--|----------------------------|
| product brand name   | SIRIUS                     |
| product designation  | Power contactor            |
| product type designation   | 3RT2                       |
| <b>General technical data</b>  |                            |
| size of contactor  | S0                         |
| 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                       | 4.8 W                      |
| • per pole   | 1.6 W                      |
| power loss [W] for rated value of the current without load current share typical                 | 9.4 W                      |
| surge voltage resistance   |                            |
| • of main circuit rated value  | 6 kV                       |
| • of auxiliary circuit rated value   | 6 kV                       |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 400 V                      |
| shock resistance at rectangular impulse  |                            |
| • at AC  | 8,3g / 5 ms, 5,3g / 10 ms  |
| shock resistance with sine pulse   |                            |
| • at AC  | 13,5g / 5 ms, 8,3g / 10 ms |
| mechanical service life (switching 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 acc. to IEC 81346-2   | Q                          |
| Substance Prohibitance (Date)  | 01.10.2009 00:00:00        |
| <b>Ambient conditions</b>  |                            |
| installation altitude at height above sea level maximum  | 2 000 m                    |
| • ambient temperature during operation   | -25 ... +60 °C             |
| • ambient temperature during storage   | -55 ... +80 °C             |
| <b>Main circuit</b>  |                            |
| 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                      |

|  |   |
|--|---|
| <b>operational current</b>   |   |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>  | 40 A                                    |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul> </li> </ul>  | 40 A<br>35 A                            |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>  | 25 A<br>18 A<br>13 A                    |
| • at AC-4 at 400 V rated value   | 15.5 A                                  |
| • at AC-5a up to 690 V rated value   | 35.2 A                                  |
| • at AC-5b up to 400 V rated value   | 20.7 A                                  |
| <ul style="list-style-type: none"> <li>• at AC-6a <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> </li> </ul> | 20.2 A<br>20.2 A<br>20.2 A<br>12.9 A    |
| <ul style="list-style-type: none"> <li>• at AC-6a <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> </li> </ul> | 13.5 A<br>13.5 A<br>13.5 A<br>13 A      |
| minimum cross-section in main circuit at maximum AC-1 rated value  | 10 mm <sup>2</sup>                      |
| <b>operational current 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>   | 9 A<br>9 A                              |
| <b>operational current</b>   |   |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 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>4.5 A<br>1 A<br>0.4 A<br>0.25 A |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 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>35 A<br>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 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>35 A<br>35 A<br>2.9 A<br>1.4 A  |
| <b>operational current</b>   |   |
| <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> </ul> </li> </ul>   | 20 A                                    |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <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> <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 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 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> | 2.5 A<br>1 A<br>0.09 A<br>0.06 A<br><br>35 A<br>15 A<br>3 A<br>0.27 A<br>0.16 A<br><br>35 A<br>35 A<br>10 A<br>0.6 A<br>0.6 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> </ul>  | 11 kW<br><br>5.5 kW<br>11 kW<br>11 kW<br>11 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>   | 4.4 kW<br>7.7 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>   | 8 kV·A<br>13.9 kV·A<br>17.4 kV·A<br>15.4 kV·A   |
| <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>   | 5.3 kV·A<br>9.3 kV·A<br>11.6 kV·A<br>15.5 kV·A  |
| <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>  | 375 A; Use minimum cross-section acc. to AC-1 rated value<br>299 A; Use minimum cross-section acc. to AC-1 rated value<br>200 A; Use minimum cross-section acc. to AC-1 rated value<br>128 A; Use minimum cross-section acc. to AC-1 rated value<br>106 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-4 maximum</li> </ul>   | 1 000 1/h<br>750 1/h<br>750 1/h<br>250 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>  |   |
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>   | 480 V   |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b>  |   |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>   | 0.85 ... 1.1  |
| <b>apparent pick-up power of magnet coil at AC</b>   |   |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>   | 87 V·A  |
| <b>inductive power factor with closing power of the coil</b>   |   |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>   | 0.76  |
| <b>apparent holding power of magnet coil at AC</b>   |   |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>   | 9.4 V·A   |
| <b>inductive power factor with the holding power of the coil</b>   |   |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>   | 0.28  |
| <b>closing delay</b>   |   |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>  | 8 ... 40 ms                                     |
| <b>opening delay</b>   |   |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>  | 4 ... 16 ms                                     |
| <b>arcing time</b>   | 10 ... 10 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>  |   |
| <ul style="list-style-type: none"> <li>• at 230 V rated value</li> </ul>   | 10 A  |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>   | 3 A   |
| <ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>   | 2 A   |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>   | 1 A   |
| <b>operational current at DC-12</b>  |   |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>  | 10 A  |
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> </ul>  | 6 A   |
| <ul style="list-style-type: none"> <li>• at 60 V rated value</li> </ul>  | 6 A   |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> </ul>   | 3 A   |
| <ul style="list-style-type: none"> <li>• at 125 V rated value</li> </ul>   | 2 A   |
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> </ul>   | 1 A   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>   | 0.15 A  |
| <b>operational current at DC-13</b>  |   |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>  | 10 A  |
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> </ul>  | 2 A   |
| <ul style="list-style-type: none"> <li>• at 60 V rated value</li> </ul>  | 2 A   |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> </ul>   | 1 A   |
| <ul style="list-style-type: none"> <li>• at 125 V rated value</li> </ul>   | 0.9 A   |
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> </ul>   | 0.3 A   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>   | 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>  |   |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>   | 21 A  |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>   | 22 A  |
| <b>yielded mechanical performance [hp]</b>   |   |
| <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> </ul>  | 2 hp<br>3 hp                                    |
| <ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul> | 5 hp<br>7.5 hp<br>15 hp<br>20 hp                |
| <b>contact rating of auxiliary contacts according to UL</b>  | A600 / P600                                     |
| <b>Short-circuit protection</b>  |   |
| <b>design of the fuse link</b>   |   |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit</li> </ul>   |   |

|   |  |
|---|--|
| — with type of coordination 1 required                                      | gG: 100 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 100 A (415 V, 80 kA)  |
| — with type of assignment 2 required  | gG: 35A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA)   |
| • for short-circuit protection of the auxiliary switch required             | gG: 10 A (500 V, 1 kA)   |
| <b>Installation/ mounting/ dimensions</b>                                   |  |
| <b>mounting position</b>  | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>fastening method</b>   | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715   |
| • side-by-side mounting   | Yes  |
| <b>height</b>   | 85 mm  |
| <b>width</b>  | 45 mm  |
| <b>depth</b>  | 97 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   | 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)  |
| — solid or stranded   | 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)  |
| — finely stranded with core end processing                                  | 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²  |
| • at AWG cables for main contacts   | 2x (16 ... 12), 2x (14 ... 8)  |
| <b>connectable conductor cross-section for main contacts</b>                |  |
| • solid   | 1 ... 10 mm²   |
| • stranded  | 1 ... 10 mm²   |
| • finely stranded with core end processing                                  | 1 ... 10 mm²   |
| <b>connectable conductor cross-section for auxiliary contacts</b>           |  |
| • solid or stranded   | 0.5 ... 2.5 mm²  |
| • finely stranded with core end processing                                  | 0.5 ... 2.5 mm²  |
| <b>type of connectable conductor cross-sections</b>                         |  |
| • for auxiliary contacts  |  |
| — solid or stranded   | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)  |
| — finely stranded with core end processing                                  | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)  |
| • at AWG cables for auxiliary contacts                                      | 2x (20 ... 16), 2x (18 ... 14)   |
| • AWG number as coded connectable conductor cross section for main contacts | 16 ... 8   |
| • AWG number as coded connectable conductor                                 | 20 ... 14  |

cross section for auxiliary contacts

| Safety related data   |  |
|---|--|
| B10 value with high demand rate acc. to SN 31920                          | 1 000 000  |
| <b>proportion of dangerous failures</b>                                   |  |
| • with low demand rate acc. to SN 31920                                   | 40 %   |
| • with high demand rate acc. to SN 31920                                  | 73 %   |
| failure rate [FIT] with low demand rate acc. to SN 31920                  | 100 FIT  |
| <b>product function</b>   |  |
| • mirror contact acc. to IEC 60947-4-1                                    | Yes  |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y   |
| <b>protection class IP on the front acc. to IEC 60529</b>                 | IP20   |
| <b>touch protection on the front acc. to IEC 60529</b>                    | finger-safe, for vertical contact from the front |
| suitability for use safety-related switching OFF                          | Yes  |

#### Certificates/ approvals

General Product Approval

EMC



[KC](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)



other

[Confirmation](#)

#### Further information

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=3RT2026-1AV60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-1AV60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AV60>

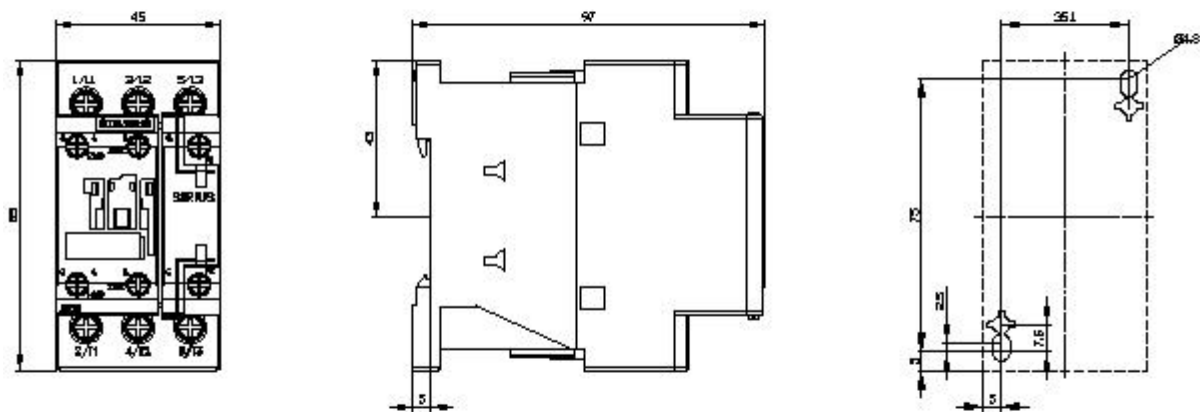
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

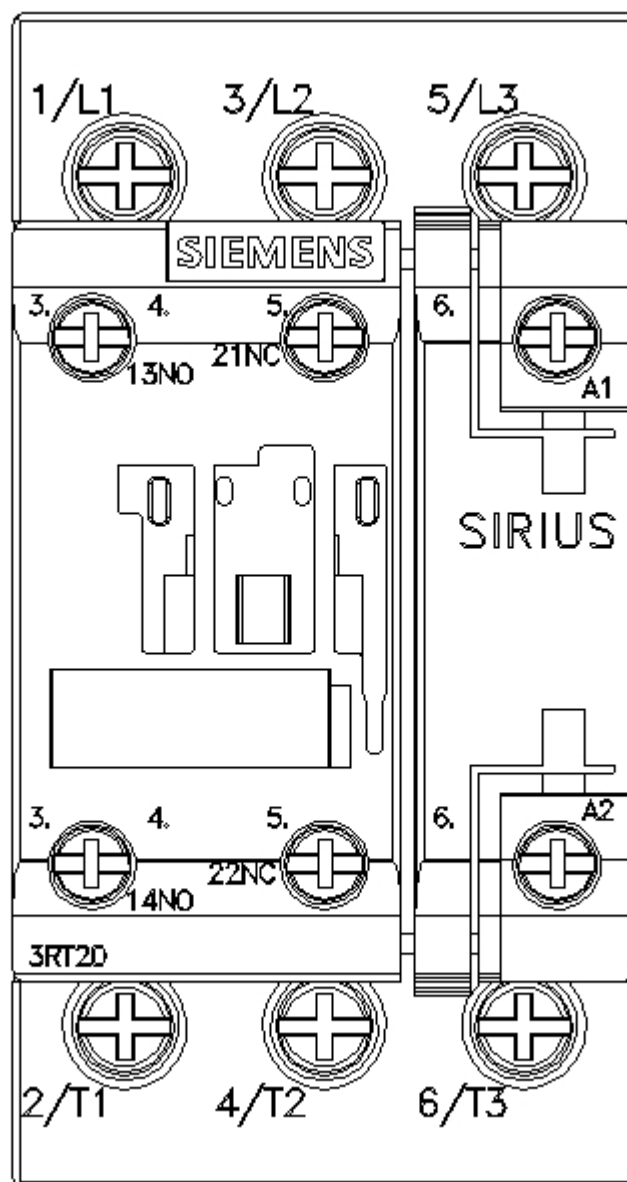
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2026-1AV60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-1AV60&lang=en)

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

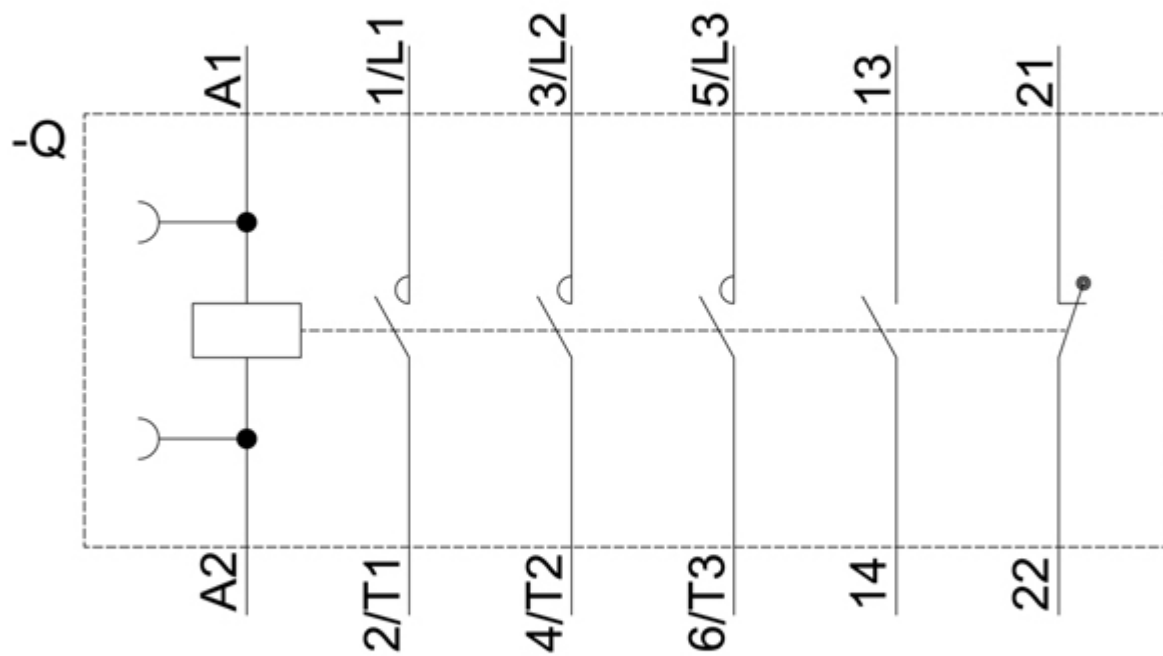
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AV60/char>

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









last modified:

1/18/2021 [🔗](#)