

power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 125 V DC, 3-pole, Size S0 screw terminal



|                                                     |                          |
|-----------------------------------------------------|--------------------------|
| Product brand name                                  | SIRIUS                   |
| Product designation                                 | Power contactor          |
| Product type designation                            | 3RT2                     |
| General technical data                              |                          |
| Size of contactor                                   | S0                       |
| Product extension                                   |                          |
| • function module for communication                 | No                       |
| • Auxiliary switch                                  | Yes                      |
| 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                    |
| Protection class IP                                 |                          |
| • on the front                                      | IP20                     |
| • of the terminal                                   | IP20                     |
| Shock resistance at rectangular impulse             |                          |
| • at DC                                             | 10g / 5 ms, 7,5g / 10 ms |

|                                                                                         |                         |
|-----------------------------------------------------------------------------------------|-------------------------|
| <b>Shock resistance with sine pulse</b>                                                 |                         |
| • at DC                                                                                 | 15g / 5 ms, 10g / 10 ms |
| <b>Mechanical service life (switching cycles)</b>                                       |                         |
| • of contactor typical                                                                  | 10 000 000              |
| • of the contactor with added electronics-compatible auxiliary switch block typical     | 5 000 000               |
| • of the contactor with added auxiliary switch block typical                            | 10 000 000              |
| <b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b> | K                       |
| <b>Reference code acc. to DIN EN 81346-2</b>                                            | Q                       |

#### Ambient conditions

|                                                        |         |
|--------------------------------------------------------|---------|
| <b>Installation altitude at height above sea level</b> |         |
| • maximum                                              | 2 000 m |

#### Main circuit

|                                                        |        |
|--------------------------------------------------------|--------|
| <b>Number of poles for main current circuit</b>        | 3      |
| <b>Number of NO contacts for main contacts</b>         | 3      |
| <b>Operating voltage</b>                               |        |
| • at AC-3 rated value maximum                          | 690 V  |
| <b>Operating current</b>                               |        |
| • at AC-1 at 400 V                                     |        |
| — at ambient temperature 40 °C rated value             | 40 A   |
| • at AC-1                                              |        |
| — up to 690 V at ambient temperature 40 °C rated value | 40 A   |
| — up to 690 V at ambient temperature 60 °C rated value | 35 A   |
| • at AC-2 at 400 V rated value                         | 25 A   |
| • at AC-3                                              |        |
| — at 400 V rated value                                 | 25 A   |
| — at 500 V rated value                                 | 18 A   |
| — at 690 V rated value                                 | 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 |
| • at AC-6a                                             |        |
| — up to 230 V for current peak value n=20 rated value  | 20.2 A |
| — up to 400 V for current peak value n=20 rated value  | 20.2 A |
| — up to 500 V for current peak value n=20 rated value  | 20.2 A |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— up to 690 V for current peak value n=20 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 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                                                                                               |
| <b>Minimum cross-section in main circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• at maximum AC-1 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 mm <sup>2</sup>                                                                                                               |
| <b>Operating 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>Operating 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> <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> <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>4.5 A<br>1 A<br>0.4 A<br>0.25 A<br><br>35 A<br>35 A<br>5 A<br>1 A<br>0.8 A<br><br>35 A<br>35 A<br>35 A<br>2.9 A<br>1.4 A |
| <b>Operating 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> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 A<br>2.5 A<br>1 A<br>0.09 A                                                                                                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 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 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>15 A<br>3 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 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>10 A<br>0.6 A<br>0.6 A                                                               |
| <b>Operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V rated value</li> <li>— at 400 V at 60 °C rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <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> | 13.3 kW<br>13.3 kW<br>23 kW<br>23 kW<br>40 kW<br>40 kW<br>11 kW<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>Thermal short-time current limited to 10 s</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 200 A                                                                                                |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.6 W                                                                                                |
| <b>No-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 500 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                                                           |

| Control circuit/ Control                                                       |                  |
|--------------------------------------------------------------------------------|------------------|
| Type of voltage of the control supply voltage                                  | DC               |
| Control supply voltage at DC                                                   |                  |
| • rated value                                                                  | 125 V            |
| Operating range factor control supply voltage rated value of magnet coil at DC |                  |
| • initial value                                                                | 0.8              |
| • Full-scale value                                                             | 1.1              |
| Closing power of magnet coil at DC                                             | 5.9 W            |
| Holding power of magnet coil at DC                                             | 5.9 W            |
| Closing delay                                                                  |                  |
| • at DC                                                                        | 50 ... 170 ms    |
| Opening delay                                                                  |                  |
| • at DC                                                                        | 15 ... 17.5 ms   |
| Arcing time                                                                    | 10 ... 10 ms     |
| Control version of the switch operating mechanism                              | Standard A1 - A2 |
| Auxiliary circuit                                                              |                  |
| Number of NC contacts for auxiliary contacts                                   |                  |
| • instantaneous contact                                                        | 1                |
| Number of NO contacts for auxiliary contacts                                   |                  |
| • instantaneous contact                                                        | 1                |
| Operating current at AC-12 maximum                                             | 10 A             |
| Operating current at AC-15                                                     |                  |
| • 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              |
| Operating current at DC-12                                                     |                  |
| • 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           |
| Operating current at DC-13                                                     |                  |
| • 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            |

|                                                                                                                                                                                                                                                                        |                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 three-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 three-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 / Q600                                                                                                                                             |
| <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 <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> </ul>                           | gG: 100 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 100 A (415 V, 80 kA)<br>gG: 35A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA) |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                      | 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>Mounting type</b>                                                                                                                                                                                                                                                   | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                                                  |
| <ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul>                                                                                                                                                                                              | Yes                                                                                                                                                     |
| <b>Height</b>                                                                                                                                                                                                                                                          | 85 mm                                                                                                                                                   |
| <b>Width</b>                                                                                                                                                                                                                                                           | 45 mm                                                                                                                                                   |
| <b>Depth</b>                                                                                                                                                                                                                                                           | 107 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> </ul>                                                            | 10 mm<br>10 mm<br>10 mm<br>0 mm                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for grounded parts</li> </ul>                                                                                                                                                                                                 |                                                                                                                                                         |

|                  |       |
|------------------|-------|
| — 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  |

## Connections/Terminals

|                                                                   |                                                                                         |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Type of electrical connection</b>                              |                                                                                         |
| • for main current circuit                                        | screw-type terminals                                                                    |
| • for auxiliary and control current 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 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )                       |
| — single or multi-stranded                                        | 2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )                       |
| — finely stranded with core end processing                        | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> |
| • at AWG conductors for main contacts                             | 2x (16 ... 12), 2x (14 ... 8)                                                           |
| <b>Connectable conductor cross-section for main contacts</b>      |                                                                                         |
| • solid                                                           | 1 ... 10 mm <sup>2</sup>                                                                |
| • stranded                                                        | 1 ... 10 mm <sup>2</sup>                                                                |
| • finely stranded with core end processing                        | 1 ... 10 mm <sup>2</sup>                                                                |
| <b>Connectable conductor cross-section for auxiliary contacts</b> |                                                                                         |
| • single or multi-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                                          |                                                                                         |
| — single or multi-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> )                   |
| • at AWG conductors for auxiliary contacts                        | 2x (20 ... 16), 2x (18 ... 14)                                                          |
| <b>AWG number as coded connectable conductor cross section</b>    |                                                                                         |
| • for main contacts                                               | 16 ... 8                                                                                |
| • for auxiliary contacts                                          | 20 ... 14                                                                               |

## 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 %        |
| <b>Failure rate [FIT]</b>                                                 |             |
| • 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 against electrical shock</b>                                | finger-safe |

#### Certificates/approvals

|                                 |            |
|---------------------------------|------------|
| <b>General Product Approval</b> | <b>EMC</b> |
|---------------------------------|------------|



[KC](#)



|                                              |                                  |                          |                          |
|----------------------------------------------|----------------------------------|--------------------------|--------------------------|
| <b>Functional Safety/Safety of Machinery</b> | <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|----------------------------------------------|----------------------------------|--------------------------|--------------------------|

[Type Examination Certificate](#)



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS

#### Marine / Shipping



LRS



PRS



RINA



RMRS



DNVGL.COM/AF

#### other

[Confirmation](#)



VDE

#### Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2026-1BG40>



### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-1BG40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1BG40>

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

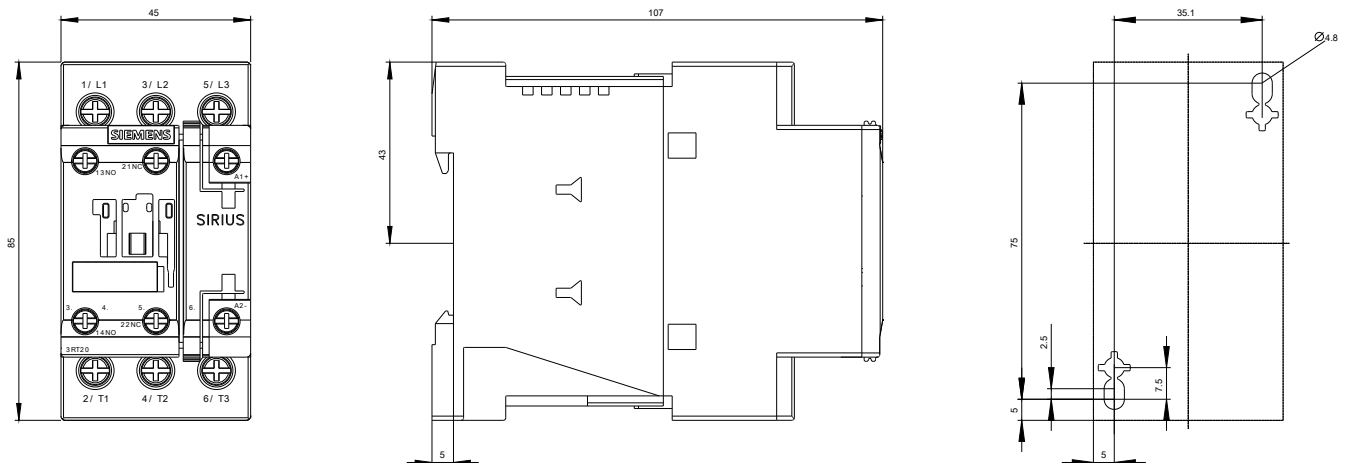
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2026-1BG40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-1BG40&lang=en)

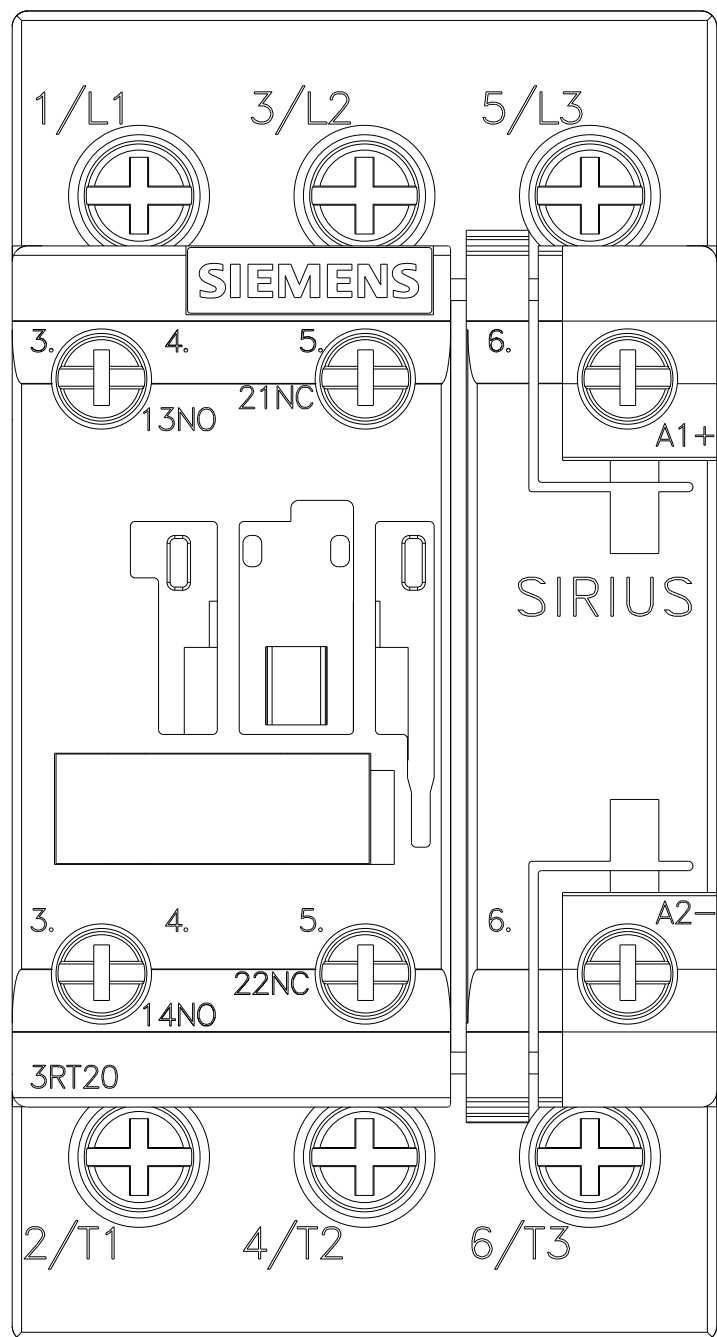
### Characteristic: Tripping characteristics, $I^2t$ , Let-through current

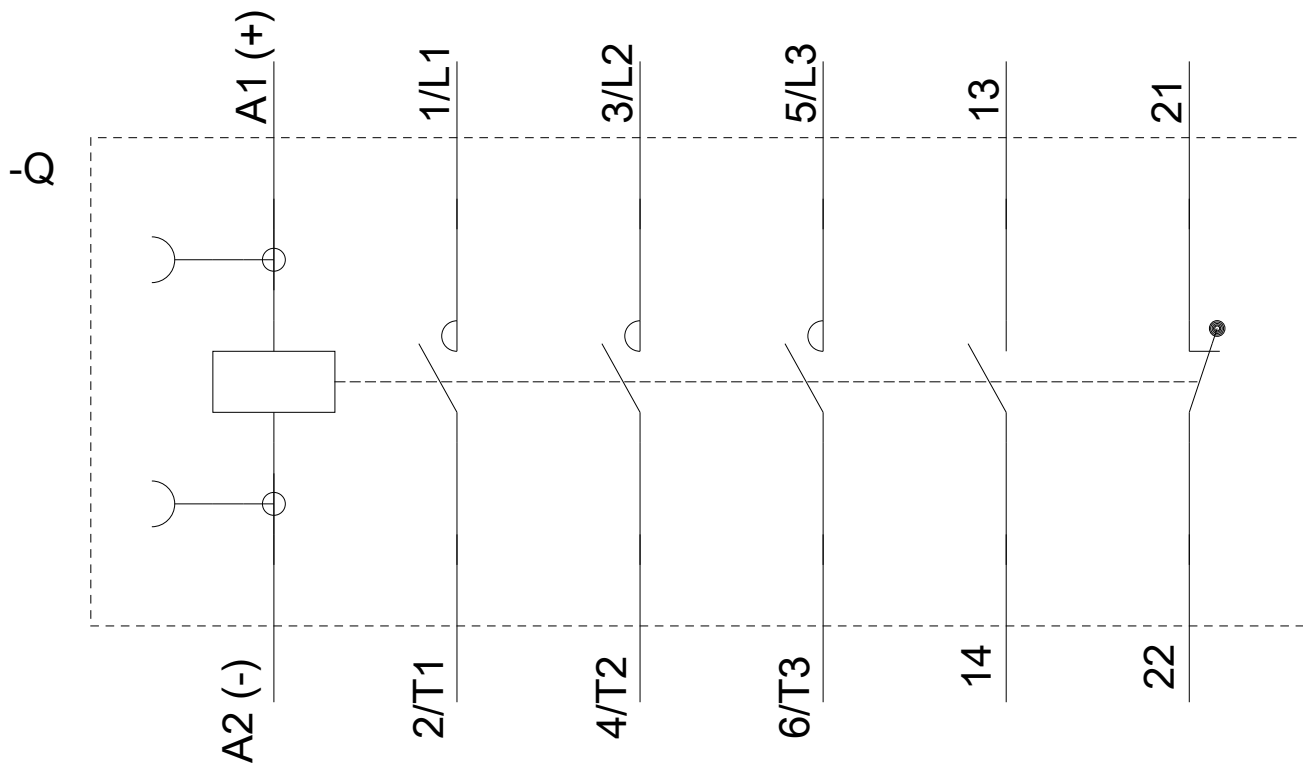
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1BG40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2026-1BG40&objecttype=14&gridview=view1>







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