



power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 100 V AC, 50 / 60 Hz, 3-pole, Size S0, Spring-type terminal

|                                 |                 |
|---------------------------------|-----------------|
| <b>product brand name</b>       | SIRIUS          |
| <b>product designation</b>      | Power contactor |
| <b>product type designation</b> | 3RT2            |

### General technical data

|                                                                                                       |                            |
|-------------------------------------------------------------------------------------------------------|----------------------------|
| <b>size of contactor</b>                                                                              | S0                         |
| <b>product extension</b>                                                                              |                            |
| • function module for communication                                                                   | No                         |
| • auxiliary switch                                                                                    | Yes                        |
| <b>power loss [W] for rated value of the current</b>                                                  |                            |
| • at AC in hot operating state                                                                        | 5.7 W                      |
| • at AC in hot operating state per pole                                                               | 1.9 W                      |
| • without load current share typical                                                                  | 10.5 W                     |
| <b>insulation voltage</b>                                                                             |                            |
| • of main circuit with degree of pollution 3 rated value                                              | 690 V                      |
| • of auxiliary circuit with degree of pollution 3 rated value                                         | 690 V                      |
| <b>surge voltage resistance</b>                                                                       |                            |
| • 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 according to EN 60947-1 | 400 V                      |
| <b>shock resistance at rectangular impulse</b>                                                        |                            |
| • at AC                                                                                               | 8,3g / 5 ms, 5,3g / 10 ms  |
| <b>shock resistance with sine pulse</b>                                                               |                            |
| • at AC                                                                                               | 13,5g / 5 ms, 8,3g / 10 ms |
| <b>mechanical service life (switching cycles)</b>                                                     |                            |
| • of contactor typical                                                                                | 10 000 000                 |
| • of the contactor with added electronically optimized auxiliary switch block typical                 | 5 000 000                  |
| • of the contactor with added auxiliary switch block typical                                          | 10 000 000                 |
| <b>reference code according to IEC 81346-2</b>                                                        | Q                          |
| <b>Substance Prohibitance (Date)</b>                                                                  | 10/01/2009                 |

### Ambient conditions

|                                                                       |                |
|-----------------------------------------------------------------------|----------------|
| installation altitude at height above sea level maximum               | 2 000 m        |
| <b>ambient temperature</b>                                            |                |
| • during operation                                                    | -25 ... +60 °C |
| • during storage                                                      | -55 ... +80 °C |
| <b>relative humidity minimum</b>                                      | 10 %           |
| <b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b> | 95 %           |

### 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              |
| • at AC-3e rated value maximum                                         | 690 V              |
| <b>operational current</b>                                             |                    |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value            | 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-3                                                              |                    |
| — at 400 V rated value                                                 | 25 A               |
| — at 500 V rated value                                                 | 18 A               |
| — at 690 V rated value                                                 | 13 A               |
| • at AC-3e                                                             |                    |
| — 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             |
| — up to 690 V for current peak value n=20 rated value                  | 12.9 A             |
| • at AC-6a                                                             |                    |
| — up to 230 V for current peak value n=30 rated value                  | 13.5 A             |
| — up to 400 V for current peak value n=30 rated value                  | 13.5 A             |
| — up to 500 V for current peak value n=30 rated value                  | 13.5 A             |
| — up to 690 V for current peak value n=30 rated value                  | 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> |                    |
| • at 400 V rated value                                                 | 9 A                |
| • at 690 V rated value                                                 | 9 A                |
| <b>operational current</b>                                             |                    |
| • <b>at 1 current path at DC-1</b>                                     |                    |
| — at 24 V rated value                                                  | 35 A               |
| — at 110 V rated value                                                 | 4.5 A              |
| — at 220 V rated value                                                 | 1 A                |
| — at 440 V rated value                                                 | 0.4 A              |
| — at 600 V rated value                                                 | 0.25 A             |
| • <b>with 2 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 35 A               |
| — at 110 V rated value                                                 | 35 A               |
| — at 220 V rated value                                                 | 5 A                |
| — at 440 V rated value                                                 | 1 A                |
| — at 600 V rated value                                                 | 0.8 A              |
| • <b>with 3 current paths in series at DC-1</b>                        |                    |
| — at 24 V rated value                                                  | 35 A               |
| — at 110 V rated value                                                 | 35 A               |
| — at 220 V rated value                                                 | 35 A               |
| — at 440 V rated value                                                 | 2.9 A              |

|                                                                         |                                                           |
|-------------------------------------------------------------------------|-----------------------------------------------------------|
| — at 600 V rated value                                                  | 1.4 A                                                     |
| • <b>at 1 current path at DC-3 at DC-5</b>                              |                                                           |
| — at 24 V rated value                                                   | 20 A                                                      |
| — at 220 V rated value                                                  | 1 A                                                       |
| — at 440 V rated value                                                  | 0.09 A                                                    |
| — at 600 V rated value                                                  | 0.06 A                                                    |
| • <b>with 2 current paths in series at DC-3 at DC-5</b>                 |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 110 V rated value                                                  | 15 A                                                      |
| — at 220 V rated value                                                  | 3 A                                                       |
| — at 440 V rated value                                                  | 0.27 A                                                    |
| — at 600 V rated value                                                  | 0.16 A                                                    |
| • <b>with 3 current paths in series at DC-3 at DC-5</b>                 |                                                           |
| — at 24 V rated value                                                   | 35 A                                                      |
| — at 110 V rated value                                                  | 35 A                                                      |
| — at 220 V rated value                                                  | 10 A                                                      |
| — at 440 V rated value                                                  | 0.6 A                                                     |
| — at 600 V rated value                                                  | 0.6 A                                                     |
| <b>operating power</b>                                                  |                                                           |
| • at AC-2 at 400 V rated value                                          | 11 kW                                                     |
| • at AC-3                                                               |                                                           |
| — at 230 V rated value                                                  | 5.5 kW                                                    |
| — at 400 V rated value                                                  | 11 kW                                                     |
| — at 500 V rated value                                                  | 11 kW                                                     |
| — at 690 V rated value                                                  | 11 kW                                                     |
| • at AC-3e                                                              |                                                           |
| — at 230 V rated value                                                  | 5.5 kW                                                    |
| — at 400 V rated value                                                  | 11 kW                                                     |
| — at 500 V rated value                                                  | 11 kW                                                     |
| — at 690 V rated value                                                  | 11 kW                                                     |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>      |                                                           |
| • at 400 V rated value                                                  | 4.4 kW                                                    |
| • at 690 V rated value                                                  | 7.7 kW                                                    |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| • up to 230 V for current peak value n=20 rated value                   | 8 kVA                                                     |
| • up to 400 V for current peak value n=20 rated value                   | 13.9 kVA                                                  |
| • up to 500 V for current peak value n=20 rated value                   | 17.4 kVA                                                  |
| • up to 690 V for current peak value n=20 rated value                   | 15.4 kVA                                                  |
| <b>operating apparent power at AC-6a</b>                                |                                                           |
| • up to 230 V for current peak value n=30 rated value                   | 5.3 kVA                                                   |
| • up to 400 V for current peak value n=30 rated value                   | 9.3 kVA                                                   |
| • up to 500 V for current peak value n=30 rated value                   | 11.6 kVA                                                  |
| • up to 690 V for current peak value n=30 rated value                   | 15.5 kVA                                                  |
| <b>short-time withstand current in cold operating state up to 40 °C</b> |                                                           |
| • limited to 1 s switching at zero current maximum                      | 375 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 5 s switching at zero current maximum                      | 299 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 10 s switching at zero current maximum                     | 200 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 30 s switching at zero current maximum                     | 128 A; Use minimum cross-section acc. to AC-1 rated value |
| • limited to 60 s switching at zero current maximum                     | 106 A; Use minimum cross-section acc. to AC-1 rated value |
| <b>no-load switching frequency</b>                                      |                                                           |
| • at AC                                                                 | 5 000 1/h                                                 |
| <b>operating frequency</b>                                              |                                                           |
| • at AC-1 maximum                                                       | 1 000 1/h                                                 |
| • at AC-2 maximum                                                       | 750 1/h                                                   |
| • at AC-3 maximum                                                       | 750 1/h                                                   |
| • at AC-3e maximum                                                      | 750 1/h                                                   |
| • at AC-4 maximum                                                       | 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>                                     |                                                           |
| • at 50 Hz rated value                                                  | 100 V                                                     |
| • at 60 Hz rated value                                                  | 110 V                                                     |

|                                                                                       |                  |
|---------------------------------------------------------------------------------------|------------------|
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> |                  |
| • at 50 Hz                                                                            | 0.8 ... 1.1      |
| • at 60 Hz                                                                            | 0.85 ... 1.1     |
| <b>apparent pick-up power of magnet coil at AC</b>                                    |                  |
| • at 50 Hz                                                                            | 81 VA            |
| • at 60 Hz                                                                            | 79 VA            |
| <b>inductive power factor with closing power of the coil</b>                          |                  |
| • at 50 Hz                                                                            | 0.72             |
| • at 60 Hz                                                                            | 0.74             |
| <b>apparent holding power of magnet coil at AC</b>                                    |                  |
| • at 50 Hz                                                                            | 10.5 VA          |
| • at 60 Hz                                                                            | 8.5 VA           |
| <b>inductive power factor with the holding power of the coil</b>                      |                  |
| • at 50 Hz                                                                            | 0.25             |
| • at 60 Hz                                                                            | 0.28             |
| <b>closing delay</b>                                                                  |                  |
| • at AC                                                                               | 8 ... 40 ms      |
| <b>opening delay</b>                                                                  |                  |
| • at AC                                                                               | 4 ... 16 ms      |
| <b>arcing time</b>                                                                    | 10 ... 10 ms     |
| <b>control version of the switch operating mechanism</b>                              | 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                                               |
| 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) |

#### UL/CSA ratings

|                                                     |        |
|-----------------------------------------------------|--------|
| <b>full-load current (FLA) for 3-phase AC motor</b> |        |
| • at 480 V rated value                              | 21 A   |
| • at 600 V rated value                              | 22 A   |
| <b>yielded mechanical performance [hp]</b>          |        |
| • for single-phase AC motor                         |        |
| — at 110/120 V rated value                          | 2 hp   |
| — at 230 V rated value                              | 3 hp   |
| • for 3-phase AC motor                              |        |
| — at 200/208 V rated value                          | 5 hp   |
| — at 220/230 V rated value                          | 7.5 hp |
| — at 460/480 V rated value                          | 15 hp  |
| — at 575/600 V rated value                          | 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 <ul style="list-style-type: none"> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</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: 35 A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA)<br>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                                                                                             |
| <ul style="list-style-type: none"> <li>side-by-side mounting</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Yes                                                                                                                                                                                |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 102 mm                                                                                                                                                                             |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 45 mm                                                                                                                                                                              |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 97 mm                                                                                                                                                                              |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>with side-by-side mounting <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>for grounded parts <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li> <li>for live parts <ul style="list-style-type: none"> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> </ul> |  | 10 mm<br>10 mm<br>10 mm<br>0 mm<br><br>10 mm<br>10 mm<br>6 mm<br>10 mm<br><br>10 mm<br>10 mm<br>10 mm<br>6 mm                                                                      |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                    |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> </ul>                                                                                                                                                                                                                                                                                                      |  | spring-loaded terminals<br>spring-loaded terminals<br>Spring-type terminals<br>Spring-type terminals                                                                               |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG cables for main contacts</li> </ul>                                                                                                                                                                                         |  | 2x (1 ... 10 mm <sup>2</sup> )<br>2x (1 ... 10 mm <sup>2</sup> )<br>2x (1 ... 6 mm <sup>2</sup> )<br>2x (1 ... 6 mm <sup>2</sup> )<br>2x (18 ... 8)                                |
| <b>connectable conductor cross-section for main contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                |  | 1 ... 10 mm <sup>2</sup><br>1 ... 10 mm <sup>2</sup><br>1 ... 6 mm <sup>2</sup><br>1 ... 6 mm <sup>2</sup>                                                                         |
| <b>connectable conductor cross-section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul>                                                                                                                                                                                                                                                                                                                      |  | 0.5 ... 2.5 mm <sup>2</sup><br>0.5 ... 1.5 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup>                                                                                          |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> </ul>                                                                                                                                                                                                                                            |  | 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 1.5 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )                                                                        |

- at AWG cables for auxiliary contacts

2x (20 ... 14)

#### AWG number as coded connectable conductor cross section

- for main contacts
- for auxiliary contacts

18 ... 8  
20 ... 14

#### Safety related data

##### product function

- mirror contact according to IEC 60947-4-1

Yes

B10 value with high demand rate according to SN 31920

450 000

##### proportion of dangerous failures

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

40 %

73 %

failure rate [FIT] with low demand rate according to SN 31920

100 FIT

T1 value for proof test interval or service life according to IEC 61508

20 y

##### protection class IP on the front according to IEC 60529

IP20

##### touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

##### suitability for use

- safety-related switching OFF

Yes

#### Certificates/ approvals

##### General Product Approval



[Confirmation](#)



[KC](#)



| EMC | Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates |
|-----|---------------------------------------|---------------------------|-------------------|
|-----|---------------------------------------|---------------------------|-------------------|



[Type Examination Certificate](#)



EG-Konf.



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

#### Marine / Shipping



| Marine / Shipping | other | Railway |
|-------------------|-------|---------|
|-------------------|-------|---------|



[Confirmation](#)



[Confirmation](#)

[Vibration and Shock](#)

#### 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=3RT2026-2AG60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-2AG60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2AG60>

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

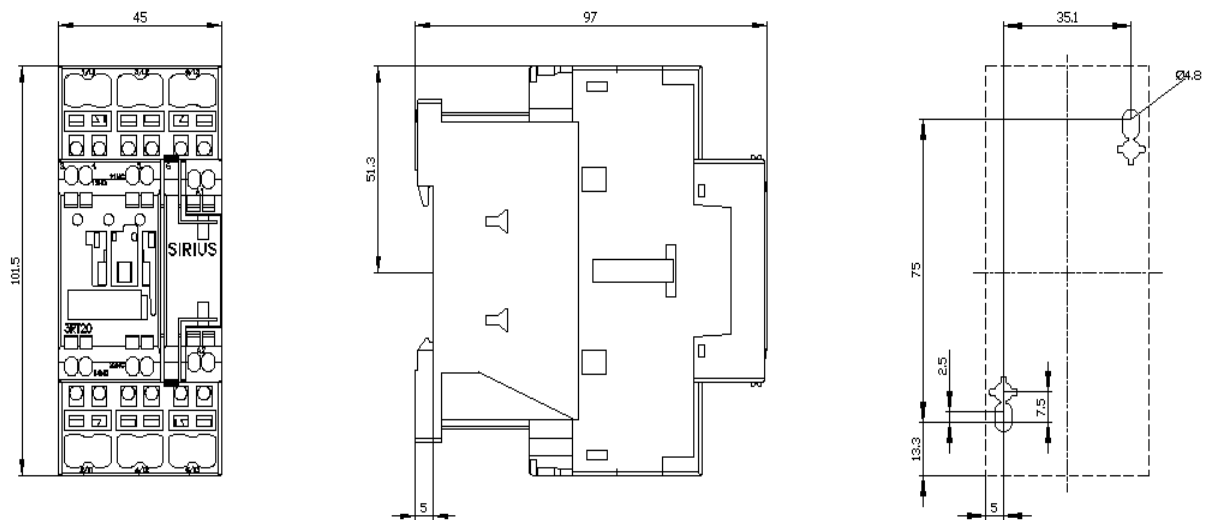
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2026-2AG60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-2AG60&lang=en)

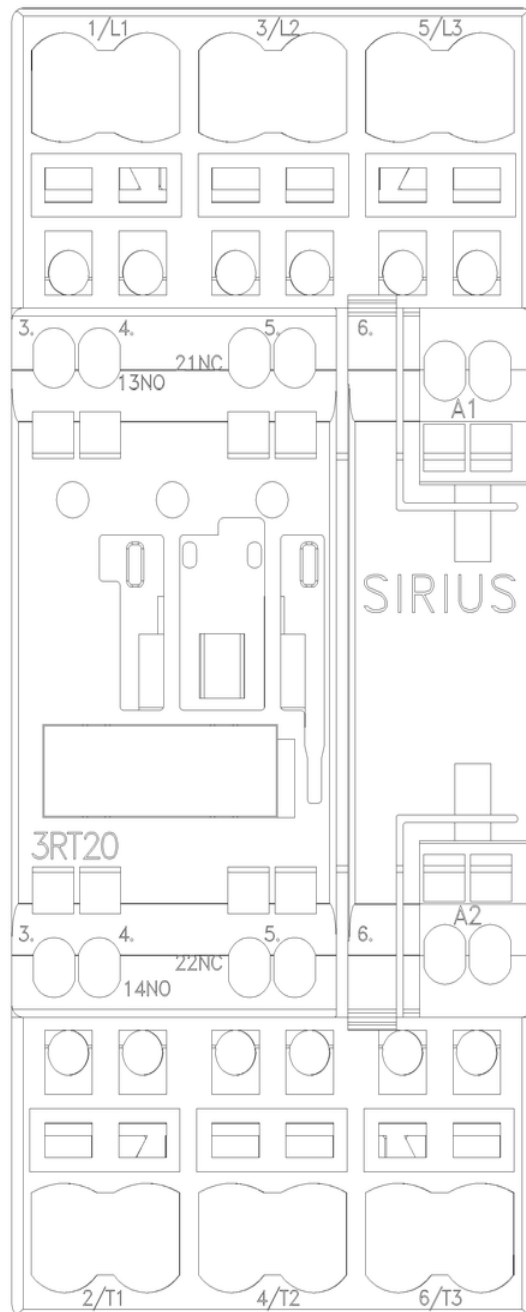
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

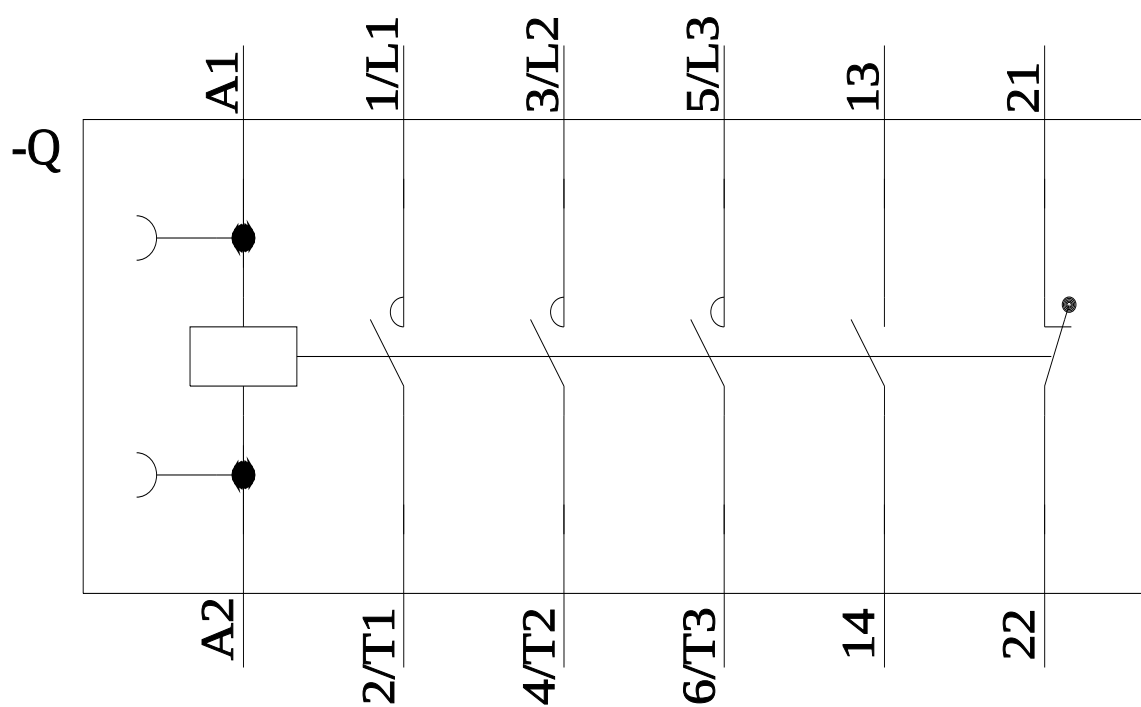
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2AG60/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2026-2AG60&objecttype=14&gridview=view1>







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