



contactor, DC-3/DC-5, 75 A, 2-pole, 24 V DC, 0.7-1.25\* U<sub>c</sub>, with varistor and series resistor, auxiliary contacts: 2 NO + 1 NC, connecting bar, frame size 4, for railway applications

|                                                                                                              |                        |
|--------------------------------------------------------------------------------------------------------------|------------------------|
| product designation                                                                                          | Contactor              |
| product type designation                                                                                     | 3TC                    |
| <b>General technical data</b>                                                                                |                        |
| size of contactor                                                                                            | 4                      |
| product extension                                                                                            |                        |
| • function module for communication                                                                          | No                     |
| • auxiliary switch                                                                                           | No                     |
| insulation voltage rated value                                                                               | 800 V                  |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 300 V                  |
| shock resistance at rectangular impulse                                                                      |                        |
| • at DC                                                                                                      | 10g / 5 ms, 5g / 10 ms |
| mechanical service life (operating cycles)                                                                   |                        |
| • of contactor typical                                                                                       | 10 000 000             |
| • of the contactor with added auxiliary switch block typical                                                 | 10 000 000             |
| reference code according to IEC 81346-2                                                                      | Q                      |
| Substance Prohibitance (Date)                                                                                | 03/01/2017             |
| SVHC substance name                                                                                          | Lead - 7439-92-1       |
| Weight                                                                                                       | 4.7 kg                 |
| <b>Ambient conditions</b>                                                                                    |                        |
| ambient temperature                                                                                          |                        |
| • during operation                                                                                           | -40 ... +70 °C         |
| • during storage                                                                                             | -50 ... +80 °C         |
| relative humidity minimum                                                                                    | 10 %                   |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum                                               | 95 %                   |
| <b>Main circuit</b>                                                                                          |                        |
| number of poles                                                                                              | 2                      |
| number of poles for main current circuit                                                                     | 2                      |
| number of NO contacts for main contacts                                                                      | 2                      |
| number of NC contacts for main contacts                                                                      | 0                      |
| type of voltage                                                                                              | DC                     |
| operational current                                                                                          |                        |
| • at 1 current path at DC-1                                                                                  |                        |
| — at 24 V rated value                                                                                        | 75 A                   |
| — at 110 V rated value                                                                                       | 75 A                   |
| — at 220 V rated value                                                                                       | 75 A                   |
| • with 2 current paths in series at DC-1                                                                     |                        |
| — at 24 V rated value                                                                                        | 75 A                   |

|                                                                |               |
|----------------------------------------------------------------|---------------|
| — at 110 V rated value                                         | 75 A          |
| — at 220 V rated value                                         | 75 A          |
| — at 440 V rated value                                         | 75 A          |
| — at 600 V rated value                                         | 75 A          |
| — at 750 V rated value                                         | 75 A          |
| ● <b>at DC-3 at DC-5</b>                                       |               |
| — at 220 V rated value                                         | 75 A          |
| — at 600 V rated value                                         | 75 A          |
| — at 750 V rated value                                         | 75 A          |
| ● <b>at 1 current path at DC-3 at DC-5</b>                     |               |
| — at 24 V rated value                                          | 75 A          |
| — at 110 V rated value                                         | 75 A          |
| — at 220 V rated value                                         | 75 A          |
| ● <b>with 2 current paths in series at DC-3 at DC-5</b>        |               |
| — at 24 V rated value                                          | 75 A          |
| — at 110 V rated value                                         | 75 A          |
| — at 220 V rated value                                         | 75 A          |
| — at 440 V rated value                                         | 75 A          |
| — at 600 V rated value                                         | 75 A          |
| — at 750 V rated value                                         | 75 A          |
| <b>operating power</b>                                         |               |
| ● <b>at DC-1</b>                                               |               |
| — at 110 V rated value                                         | 8.2 kW        |
| — at 220 V rated value                                         | 16.5 kW       |
| — at 440 V rated value                                         | 33 kW         |
| — at 750 V rated value                                         | 56 kW         |
| ● <b>at DC-3 at DC-5</b>                                       |               |
| — at 110 V rated value                                         | 6.5 kW        |
| — at 220 V rated value                                         | 13 kW         |
| — at 440 V rated value                                         | 27 kW         |
| — at 600 V rated value                                         | 38 kW         |
| — at 750 V rated value                                         | 45 kW         |
| <b>operating frequency</b>                                     |               |
| ● <b>at DC-1 maximum</b>                                       | 1 000 1/h     |
| ● <b>at DC-3 maximum</b>                                       | 600 1/h       |
| ● <b>at DC-5 maximum</b>                                       | 600 1/h       |
| <b>Control circuit/ Control</b>                                |               |
| <b>type of voltage of the control supply voltage</b>           | DC            |
| <b>control supply voltage at DC rated value</b>                | 24 V          |
| <b>design of the surge suppressor</b>                          | with varistor |
| <b>closing power of magnet coil at DC</b>                      | 19 W          |
| <b>holding power of magnet coil at DC</b>                      | 19 W          |
| closing delay at DC                                            | 90 ... 380 ms |
| opening delay at DC                                            | 17 ... 28 ms  |
| <b>arcing time</b>                                             | 20 ... 30 ms  |
| <b>Auxiliary circuit</b>                                       |               |
| <b>number of NC contacts for auxiliary contacts</b>            | 1             |
| ● instantaneous contact                                        | 1             |
| <b>number of NO contacts for auxiliary contacts</b>            | 2             |
| ● instantaneous contact                                        | 2             |
| number of CO contacts for auxiliary contacts                   | 0             |
| <b>identification number and letter for switching elements</b> | 21            |
| operational current at AC-12 maximum                           | 10 A          |
| <b>operational current at AC-15</b>                            |               |
| ● at 230 V rated value                                         | 5.6 A         |
| ● at 400 V rated value                                         | 3.6 A         |
| ● at 500 V rated value                                         | 2.5 A         |
| <b>operational current at DC-12</b>                            |               |
| ● at 24 V rated value                                          | 10 A          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               | 10 A<br>10 A<br>3.2 A<br>2.5 A<br>0.9 A<br>0.22 A                                                                                     |
| <b>operational current at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                            | 10 A<br>5 A<br>5 A<br>1.14 A<br>0.98 A<br>0.48 A<br>0.07 A                                                                            |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                       |
| <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 coordination 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                                                                                               | 2 x 3NA31 (160 A) in series (750 V, 5 kA)<br>2 x 3NA31 (63 A) in series (750 V, 5 kA)<br>gG: 16 A (500 V, 1 kA)                       |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                       |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | +/-22,5° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| fastening method side-by-side mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                                   |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | screw fixing                                                                                                                          |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 177.5 mm                                                                                                                              |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 143 mm                                                                                                                                |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 184 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>— backwards</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>— backwards</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>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 20 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br>55 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br>55 mm<br>0 mm<br>10 mm<br>10 mm<br>10 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> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                       | screw terminal<br>screw-type terminals<br>screw-type terminals                                                                        |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                            | 2x (1 ... 2.5 mm²)<br>2x (0.75 ... 1.5 mm²)                                                                                           |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                       |
| product function mirror contact according to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Yes                                                                                                                                   |

|                                                         |                                                             |
|---------------------------------------------------------|-------------------------------------------------------------|
| Electrical Safety                                       |                                                             |
| protection class IP on the front according to IEC 60529 | IP00; IP20 with box terminal/cover                          |
| touch protection on the front according to IEC 60529    | finger-safe, for vertical contact from the front with cover |
| Approvals Certificates                                  |                                                             |
| General Product Approval                                |                                                             |



|                   |                   |       |
|-------------------|-------------------|-------|
| Functional Safety | Test Certificates | other |
|-------------------|-------------------|-------|

[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



[Confirmation](#)

|                 |             |
|-----------------|-------------|
| Dangerous goods | Environment |
|-----------------|-------------|

[Transport Information](#)

[Environmental Conformations](#)

#### Further information

Information on the packaging

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

Information for data generation and storage

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

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4817-0LB4>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4817-0LB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4817-0LB4>

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

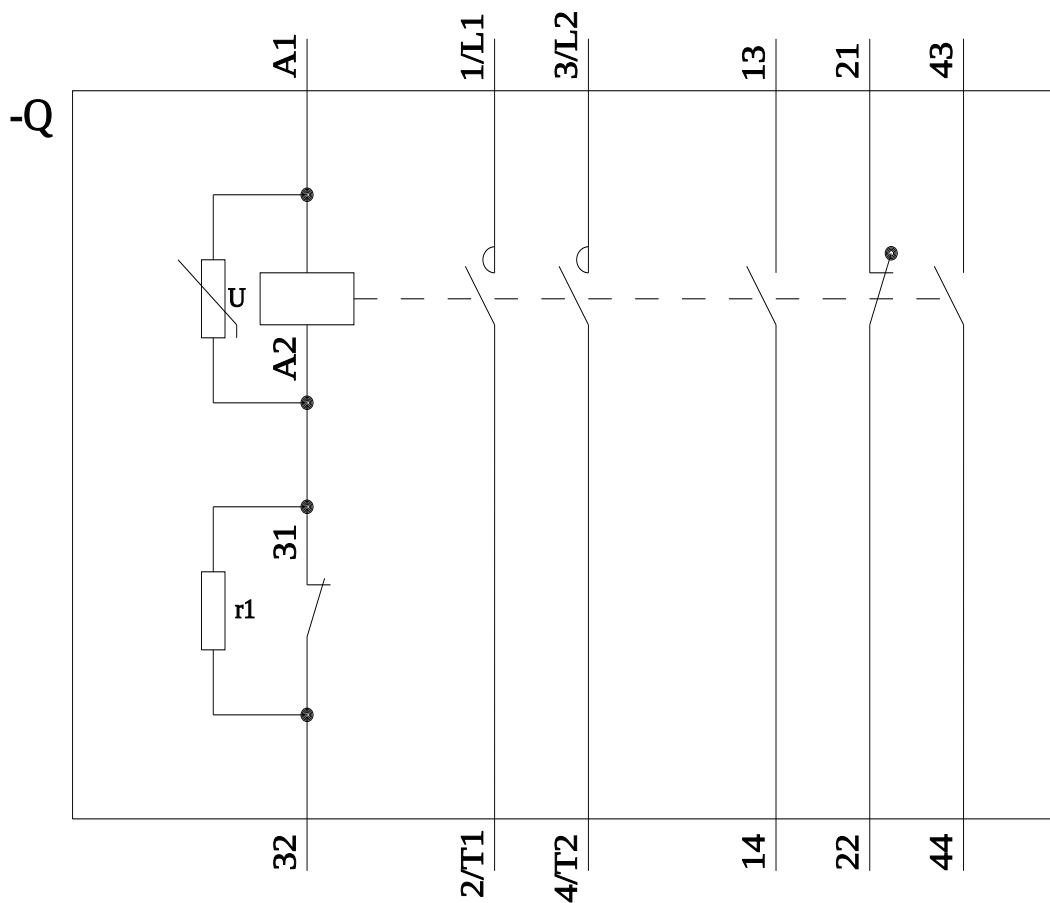
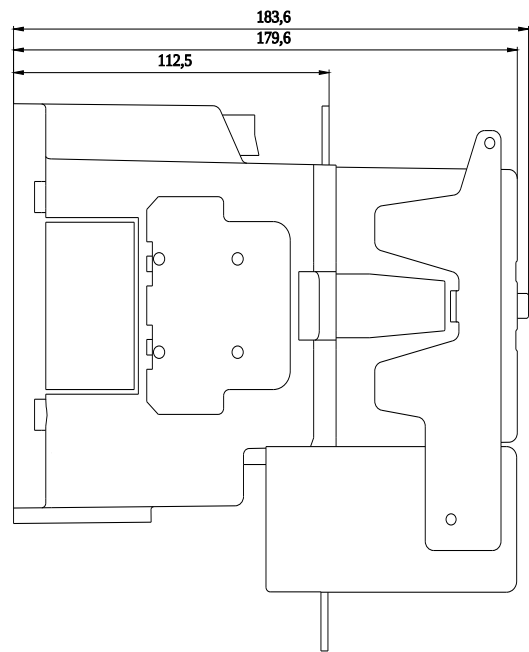
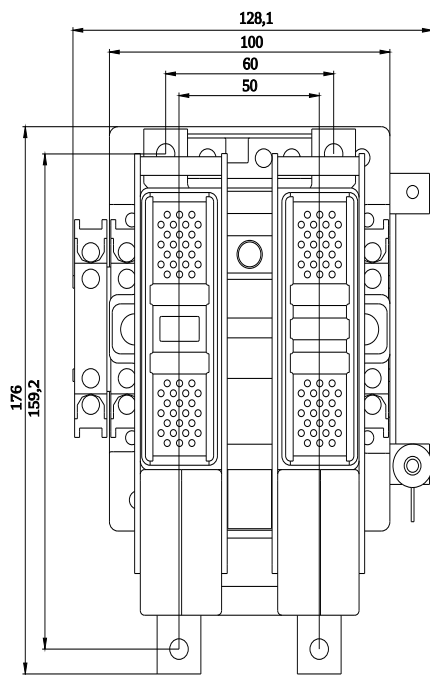
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC4817-0LB4&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4817-0LB4&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4817-0LB4/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4817-0LB4&objecttype=14&gridview=view1>



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