

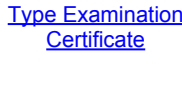
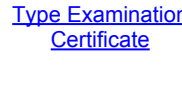
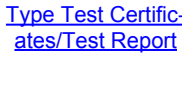


Contactor, Size 2, 2-pole, for railway applications DC-3 and 5, 7.5 A at 750 V 72 V DC Auxiliary contacts 21 (2NO+1NC) with varistor and series resistor Operating range 0.7...1.25xUS

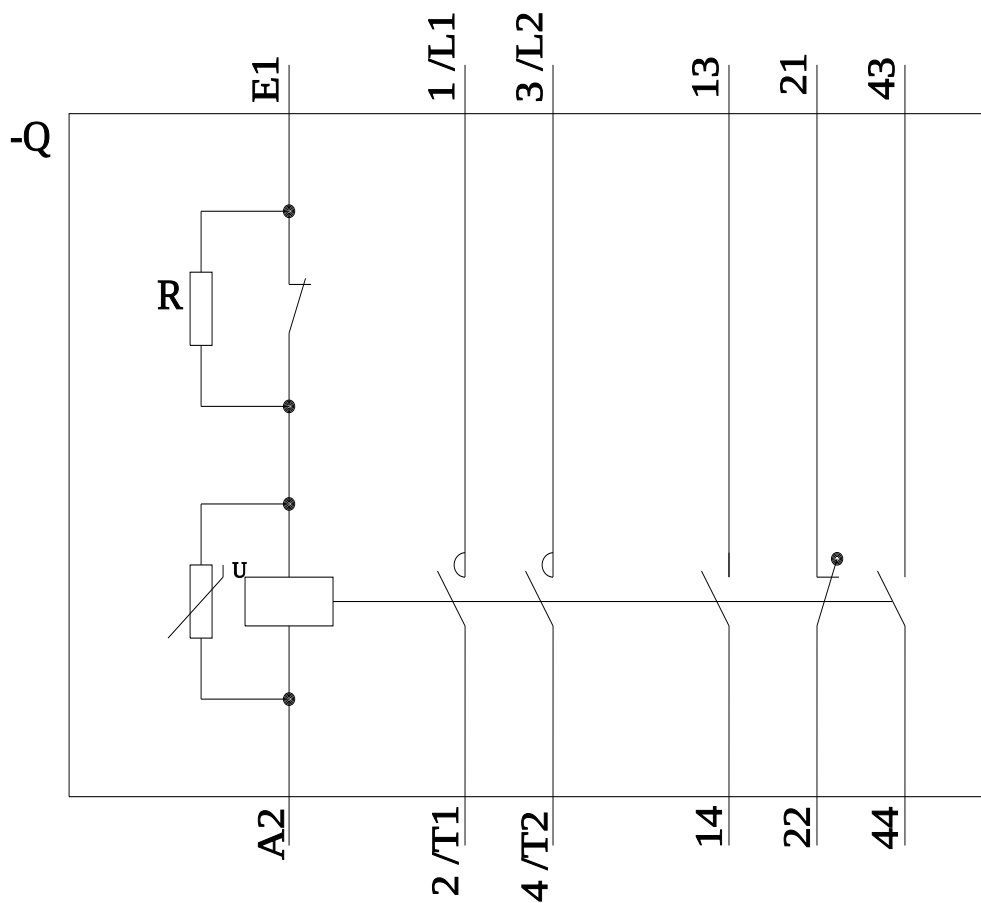
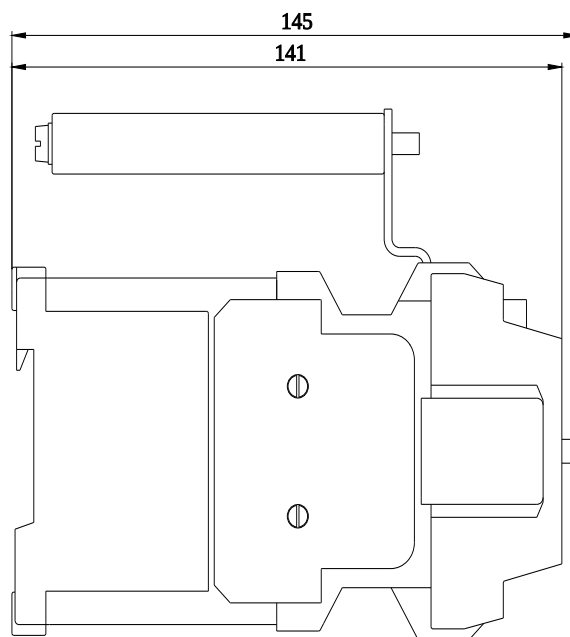
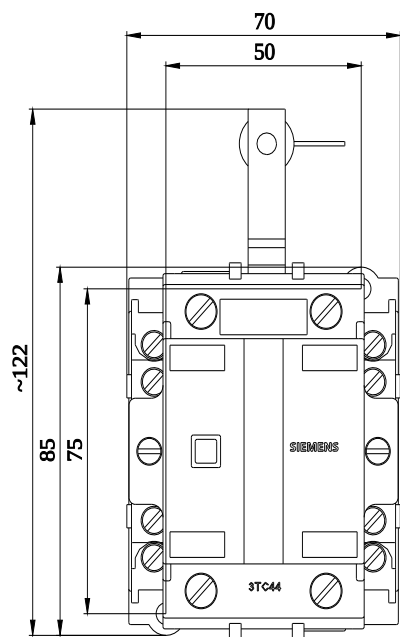
|                                                                                                         |                           |
|---------------------------------------------------------------------------------------------------------|---------------------------|
| <b>product designation</b>                                                                              | Contactor                 |
| <b>product type designation</b>                                                                         | 3TC                       |
| <b>General technical data</b>                                                                           |                           |
| <b>size of contactor</b>                                                                                | 2                         |
| <b>product extension</b>                                                                                |                           |
| • function module for communication                                                                     | No                        |
| • auxiliary switch                                                                                      | No                        |
| <b>insulation voltage rated value</b>                                                                   | 800 V                     |
| <b>maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1</b> | 300 V                     |
| <b>shock resistance at rectangular impulse</b>                                                          |                           |
| • at DC                                                                                                 | 7,5g / 5 ms, 3,4g / 10 ms |
| <b>mechanical service life (switching cycles)</b>                                                       |                           |
| • of contactor typical                                                                                  | 10 000 000                |
| • of the contactor with added auxiliary switch block typical                                            | 10 000 000                |
| <b>reference code acc. to IEC 81346-2</b>                                                               | Q                         |
| <b>Substance Prohibitance (Date)</b>                                                                    | 01.02.2012                |
| <b>Ambient conditions</b>                                                                               |                           |
| <b>ambient temperature</b>                                                                              |                           |
| • during operation                                                                                      | -40 ... +70 °C            |
| • during storage                                                                                        | -50 ... +80 °C            |
| <b>relative humidity minimum</b>                                                                        | 10 %                      |
| <b>relative humidity at 55 °C acc. to IEC 60068-2-30 maximum</b>                                        | 95 %                      |
| <b>Main circuit</b>                                                                                     |                           |
| <b>number of poles</b>                                                                                  | 2                         |
| <b>number of poles for main current circuit</b>                                                         | 2                         |
| <b>number of NO contacts for main contacts</b>                                                          | 2                         |
| <b>number of NC contacts for main contacts</b>                                                          | 0                         |
| <b>type of voltage</b>                                                                                  | DC                        |
| <b>operational current</b>                                                                              |                           |
| • <b>at 1 current path at DC-1</b>                                                                      |                           |
| — at 24 V rated value                                                                                   | 32 A                      |
| — at 110 V rated value                                                                                  | 32 A                      |
| — at 220 V rated value                                                                                  | 32 A                      |
| • <b>with 2 current paths in series at DC-1</b>                                                         |                           |
| — at 24 V rated value                                                                                   | 32 A                      |
| — at 110 V rated value                                                                                  | 32 A                      |
| — at 220 V rated value                                                                                  | 32 A                      |

|                                                                |               |
|----------------------------------------------------------------|---------------|
| — at 440 V rated value                                         | 32 A          |
| — at 600 V rated value                                         | 32 A          |
| — at 750 V rated value                                         | 32 A          |
| ● <b>at 1 current path at DC-3 at DC-5</b>                     |               |
| — at 24 V rated value                                          | 32 A          |
| — at 110 V rated value                                         | 32 A          |
| — at 220 V rated value                                         | 32 A          |
| ● <b>with 2 current paths in series at DC-3 at DC-5</b>        |               |
| — at 24 V rated value                                          | 32 A          |
| — at 110 V rated value                                         | 32 A          |
| — at 220 V rated value                                         | 32 A          |
| — at 440 V rated value                                         | 29 A          |
| — at 600 V rated value                                         | 21 A          |
| — at 750 V rated value                                         | 7.5 A         |
| <b>operating power</b>                                         |               |
| ● <b>at DC-1</b>                                               |               |
| — at 110 V rated value                                         | 3.5 kW        |
| — at 220 V rated value                                         | 7 kW          |
| — at 440 V rated value                                         | 14 kW         |
| — at 750 V rated value                                         | 24 kW         |
| ● <b>at DC-3 at DC-5</b>                                       |               |
| — at 110 V rated value                                         | 2.5 kW        |
| — at 220 V rated value                                         | 5 kW          |
| — at 440 V rated value                                         | 9 kW          |
| — at 600 V rated value                                         | 9 kW          |
| — at 750 V rated value                                         | 4 kW          |
| <b>operating frequency</b>                                     |               |
| ● <b>at DC-1 maximum</b>                                       | 1 500 1/h     |
| ● <b>at DC-3 maximum</b>                                       | 750 1/h       |
| ● <b>at DC-5 maximum</b>                                       | 750 1/h       |
| <b>Control circuit/ Control</b>                                |               |
| <b>type of voltage of the control supply voltage</b>           | DC            |
| <b>control supply voltage at DC</b>                            |               |
| ● <b>rated value</b>                                           | 72 V          |
| <b>design of the surge suppressor</b>                          | with varistor |
| <b>closing power of magnet coil at DC</b>                      | 48 W          |
| <b>holding power of magnet coil at DC</b>                      | 13 W          |
| closing delay at DC                                            | 35 ... 190 ms |
| opening delay at DC                                            | 10 ... 25 ms  |
| <b>arcing time</b>                                             | 20 ... 30 ms  |
| <b>Auxiliary circuit</b>                                       |               |
| <b>number of NC contacts for auxiliary contacts</b>            | 2             |
| ● <b>instantaneous contact</b>                                 | 1             |
| <b>number of NO contacts for auxiliary contacts</b>            | 2             |
| ● <b>instantaneous contact</b>                                 | 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>                            |               |
| ● <b>at 230 V rated value</b>                                  | 5.6 A         |
| ● <b>at 400 V rated value</b>                                  | 3.6 A         |
| ● <b>at 500 V rated value</b>                                  | 2.5 A         |
| <b>operational current at DC-12</b>                            |               |
| ● <b>at 24 V rated value</b>                                   | 10 A          |
| ● <b>at 48 V rated value</b>                                   | 10 A          |
| ● <b>at 60 V rated value</b>                                   | 10 A          |
| ● <b>at 110 V rated value</b>                                  | 3.2 A         |
| ● <b>at 125 V rated value</b>                                  | 2.5 A         |
| ● <b>at 220 V rated value</b>                                  | 0.9 A         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.22 A                                                                                                                                                                          |
| <b>operational current at DC-13</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 A                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• at 48 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5 A                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 60 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5 A                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1.14 A                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at 125 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.98 A                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.48 A                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 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 assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                                                                                                        | 2 x 3NA3020 (50 A) in series (750 V, 3 kA)<br>2 x 3NA3020 (50 A) in series (750 V, 3 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; standing, on horizontal mounting surface |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022                                                                                          |
| <ul style="list-style-type: none"> <li>• side-by-side mounting</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes                                                                                                                                                                             |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 115 mm                                                                                                                                                                          |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 82 mm                                                                                                                                                                           |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 145 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> | 15 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br><br>30 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br><br>30 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm                                        |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | screw-type terminals                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | screw-type terminals<br>screw-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 or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                             | 2x (2,5 ... 10 mm <sup>2</sup> )<br>2x (1.5 ... 4 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> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                        | 2x (1 ... 2,5 mm <sup>2</sup> )<br>2x (0.75 ... 1.5 mm <sup>2</sup> )                                                                                                           |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                 |

|                                                                                   |  |                                                                                                                 |                                       |                                                                                     |                   |
|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------|-------------------|
| product function mirror contact acc. to IEC 60947-4-1                             |  | Yes; One NC contact each must be connected in series for the right and left auxiliary switch block respectively |                                       |                                                                                     |                   |
| protection class IP on the front acc. to IEC 60529                                |  | IP00                                                                                                            |                                       |                                                                                     |                   |
| Certificates/ approvals                                                           |  |                                                                                                                 |                                       |                                                                                     |                   |
| General Product Approval                                                          |  |                                                                                                                 | Functional Safety/Safety of Machinery |                                                                                     |                   |
|  |  |                                |                                       |    |                   |
|                                                                                   |  |                                |                                       |  |                   |
|                                                                                   |  |                                                                                                                 |                                       |  |                   |
| Declaration of Conformity                                                         |  | Test Certificates                                                                                               |                                       |                                                                                     | Marine / Shipping |
|  |  |                                |                                       |    |                   |
|                                                                                   |  |                                                                                                                 |                                       |    |                   |
|                                                                                   |  |                                                                                                                 |                                       |  |                   |
|                                                                                   |  |                                                                                                                 |                                       |  |                   |
| other                                                                             |  | Dangerous Good                                                                                                  |                                       |                                                                                     |                   |
|  |  |                                |                                       |                                                                                     |                   |

|                                                                                                                                                                                                                                                                                                                                                 |  |
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| <b>Further information</b>                                                                                                                                                                                                                                                                                                                      |  |
| Information- and Downloadcenter (Catalogs, Brochures,...)<br><a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>                                                                                                                                                                                                            |  |
| Industry Mall (Online ordering system)<br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4417-0LJ8">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4417-0LJ8</a>                                                                                                                           |  |
| Cax online generator<br><a href="http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3TC4417-0LJ8">http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3TC4417-0LJ8</a>                                                                                                                 |  |
| Service&Support (Manuals, Certificates, Characteristics, FAQs,...)<br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LJ8">https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LJ8</a>                                                                                                                                 |  |
| Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)<br><a href="http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0LJ8&amp;lang=en">http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0LJ8&amp;lang=en</a>                                            |  |
| Characteristic: Tripping characteristics, I <sub>t</sub> , Let-through current<br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LJ8/char">https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LJ8/char</a>                                                                                                           |  |
| Further characteristics (e.g. electrical endurance, switching frequency)<br><a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&amp;mlfb=3TC4417-0LJ8&amp;objecttype=14&amp;gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&amp;mlfb=3TC4417-0LJ8&amp;objecttype=14&amp;gridview=view1</a> |  |



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12/2/2021

