



Contactor, size 12, 2-pole, DC-3 and 5, 400 A Auxiliary switch 22 (2 NO + 2 NC) 24 V DC DC operation upright mounting position DC operation

|                                                                                                              |                          |
|--------------------------------------------------------------------------------------------------------------|--------------------------|
| product designation                                                                                          | Contactor                |
| product type designation                                                                                     | 3TC                      |
| <b>General technical data</b>                                                                                |                          |
| size of contactor                                                                                            | 12                       |
| product extension                                                                                            |                          |
| • function module for communication                                                                          | No                       |
| • auxiliary switch                                                                                           | Yes                      |
| insulation voltage rated value                                                                               | 1 000 V                  |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 660 V                    |
| shock resistance at rectangular impulse                                                                      |                          |
| • at DC                                                                                                      | 12g / 5 ms, 5,6g / 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                                                                                                       | 23.649 kg                |
| <b>Ambient conditions</b>                                                                                    |                          |
| ambient temperature                                                                                          |                          |
| • during operation                                                                                           | -25 ... +55 °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                                                                                        | 400 A                    |
| — at 110 V rated value                                                                                       | 400 A                    |
| — at 220 V rated value                                                                                       | 400 A                    |
| • with 2 current paths in series at DC-1                                                                     |                          |
| — at 24 V rated value                                                                                        | 400 A                    |
| — at 110 V rated value                                                                                       | 400 A                    |
| — at 220 V rated value                                                                                       | 400 A                    |

|                                                                |                |
|----------------------------------------------------------------|----------------|
| — at 440 V rated value                                         | 400 A          |
| — at 600 V rated value                                         | 400 A          |
| — at 750 V rated value                                         | 400 A          |
| ● <b>at DC-3 at DC-5</b>                                       |                |
| — at 220 V rated value                                         | 400 A          |
| — at 600 V rated value                                         | 400 A          |
| — at 750 V rated value                                         | 400 A          |
| ● <b>at 1 current path at DC-3 at DC-5</b>                     |                |
| — at 24 V rated value                                          | 220 A          |
| — at 110 V rated value                                         | 220 A          |
| — at 220 V rated value                                         | 400 A          |
| ● <b>with 2 current paths in series at DC-3 at DC-5</b>        |                |
| — at 24 V rated value                                          | 400 A          |
| — at 110 V rated value                                         | 400 A          |
| — at 220 V rated value                                         | 400 A          |
| — at 440 V rated value                                         | 400 A          |
| — at 600 V rated value                                         | 400 A          |
| — at 750 V rated value                                         | 400 A          |
| <b>operating power</b>                                         |                |
| ● <b>at DC-1</b>                                               |                |
| — at 110 V rated value                                         | 44 kW          |
| — at 220 V rated value                                         | 88 kW          |
| — at 440 V rated value                                         | 176 kW         |
| — at 750 V rated value                                         | 300 kW         |
| ● <b>at DC-3 at DC-5</b>                                       |                |
| — at 110 V rated value                                         | 35 kW          |
| — at 220 V rated value                                         | 70 kW          |
| — at 440 V rated value                                         | 140 kW         |
| — at 600 V rated value                                         | 200 kW         |
| — at 750 V rated value                                         | 250 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>closing power of magnet coil at DC</b>                      | 86 W           |
| <b>holding power of magnet coil at DC</b>                      | 86 W           |
| closing delay at DC                                            | 110 ... 400 ms |
| opening delay at DC                                            | 40 ... 110 ms  |
| <b>arcing time</b>                                             | 20 ... 30 ms   |
| <b>Auxiliary circuit</b>                                       |                |
| <b>number of NC contacts for auxiliary contacts</b>            | 2              |
| ● instantaneous contact                                        | 2              |
| <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> | 22             |
| 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           |
| ● at 48 V rated value                                          | 10 A           |
| ● at 60 V rated value                                          | 10 A           |
| ● at 110 V rated value                                         | 8 A            |
| ● at 125 V rated value                                         | 6 A            |
| ● at 220 V rated value                                         | 2 A            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.4 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>2.4 A<br>2.1 A<br>1.1 A<br>0.21 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 3NE1330-4D (315 A) parallel (750 V, 12 kA)<br>2 x 3NE1330-4D (315 A) parallel (750 V, 12 kA)<br>gG: 16 A (500 V, 1 kA)                 |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                            |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | standing, on horizontal mounting surface                                                                                                   |
| fastening method side-by-side mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes                                                                                                                                        |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | screw fixing                                                                                                                               |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 281 mm                                                                                                                                     |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 160 mm                                                                                                                                     |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 314 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> | 25 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br><br>100 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br><br>100 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                            |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | screw terminal                                                                                                                             |
| <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 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                                                                                                                                        |
| <b>Electrical Safety</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                            |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | IP00; IP20 with box terminal/cover                                                                                                         |
| <b>touch protection on the front according to IEC 60529</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | finger-safe, for vertical contact from the front with cover                                                                                |
| <b>Approvals Certificates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                            |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                            |



[Confirmation](#)



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

[Type Examination Certificate](#)
[Type Examination Certificate](#)
[Special Test Certificate](#)
[Miscellaneous](#)
[Type Test Certificates/Test Report](#)
[Confirmation](#)

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

[Transport Information](#)
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#### Further information

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>  
 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=3TC5617-0AB4-Z B01>  
 Cax online generator  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5617-0AB4-Z B01>  
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0AB4-Z B01>  
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC5617-0AB4-Z B01&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5617-0AB4-Z B01&lang=en)  
 Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current  
<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0AB4-Z B01/char>  
 Further characteristics (e.g. electrical endurance, switching frequency)  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5617-0AB4-Z B01&objecttype=14&gridview=view1>



