



contactor, DC-3/DC-5, 32 A, 2-pole, 400 V AC, 50 Hz / 480 V AC, 60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, frame size 2

|  |   |
|--|---|
| <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   | Yes   |
| <b>insulation voltage rated value</b>  | 800 V   |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 300 V   |
| <b>shock resistance at rectangular impulse</b>   |   |
| • at AC  | 7,5 g / 5 ms, 3,4 g / 10 ms   |
| <b>mechanical service life (operating cycles)</b>  |   |
| • of contactor typical   | 10 000 000  |
| • of the contactor with added auxiliary switch block typical   | 10 000 000  |
| <b>reference code according to IEC 81346-2</b>   | Q   |
| <b>Substance Prohibitance (Date)</b>   | 02/01/2012  |
| <b>SVHC substance name</b>   | Lead CAS-No. 7439-92-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| <b>Net Weight</b>  | 0.662 kg  |
| <b>Ambient conditions</b>  |   |
| <b>ambient temperature</b>   |   |
| • during operation   | -25 ... +55 °C  |
| • during storage   | -50 ... +80 °C  |
| <b>relative humidity minimum</b>   | 10 %  |
| <b>relative humidity at 55 °C according 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>   |   |
| • at 1 current path at DC-1  |   |
| — at 24 V rated value  | 32 A  |
| — at 110 V rated value   | 32 A  |
| — at 220 V rated value   | 32 A  |
| • with 2 current paths in series at DC-1   |   |
| — 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 DC-3 at DC-5</b>  |              |
| — at 220 V rated value  | 32 A         |
| — at 600 V rated value  | 21 A         |
| — at 750 V rated value  | 7.5 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>                                  | AC           |
| <b>control supply voltage at AC</b>   |              |
| ● <b>at 50 Hz rated value</b>   | 400 V        |
| ● <b>at 60 Hz rated value</b>   | 480 V        |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> |              |
| ● <b>at 50 Hz</b>   | 0.8 ... 1.1  |
| <b>apparent pick-up power of magnet coil at AC</b>                                    | 68 VA        |
| ● <b>at 50 Hz</b>   | 68 VA        |
| ● <b>at 60 Hz</b>   | 95 VA        |
| <b>inductive power factor with closing power of the coil</b>                          | 0.86         |
| ● <b>at 50 Hz</b>   | 0.86         |
| ● <b>at 60 Hz</b>   | 0.79         |
| <b>apparent holding power of magnet coil at AC</b>                                    | 10 VA        |
| ● <b>at 50 Hz</b>   | 10 VA        |
| ● <b>at 60 Hz</b>   | 12 VA        |
| <b>inductive power factor with the holding power of the coil</b>                      | 0.29         |
| ● <b>at 50 Hz</b>   | 0.29         |
| ● <b>at 60 Hz</b>   | 0.3          |
| <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  | 3.2 A   |
| • at 125 V rated value  | 2.5 A   |
| • at 220 V rated value  | 0.9 A   |
| • at 600 V rated value  | 0.22 A  |
| <b>operational current at DC-13</b>                             |   |
| • at 24 V rated value   | 10 A  |
| • at 48 V rated value   | 5 A   |
| • at 60 V rated value   | 5 A   |
| • at 110 V rated value  | 1.14 A  |
| • at 125 V rated value  | 0.98 A  |
| • at 220 V rated value  | 0.48 A  |
| • at 600 V rated value  | 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>                                  |   |
| • for short-circuit protection of the main circuit              |   |
| — with type of coordination 1 required                          | 2 x 3NA3020 (50 A) in series (750 V, 3 kA)  |
| — with type of coordination 2 required                          | 2 x 3NA3020 (50 A) in series (750 V, 3 kA)  |
| • for short-circuit protection of the auxiliary switch required | 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 and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  |
| <b>height</b>   | 85 mm   |
| <b>width</b>  | 70 mm   |
| <b>depth</b>  | 104 mm  |
| <b>required spacing</b>   |   |
| • with side-by-side mounting                                    |   |
| — forwards  | 15 mm   |
| — backwards   | 0 mm  |
| — upwards   | 10 mm   |
| — downwards   | 10 mm   |
| — at the side   | 10 mm   |
| • for grounded parts  |   |
| — forwards  | 30 mm   |
| — backwards   | 0 mm  |
| — upwards   | 10 mm   |
| — at the side   | 10 mm   |
| — downwards   | 10 mm   |
| • for live parts  |   |
| — forwards  | 30 mm   |
| — backwards   | 0 mm  |
| — upwards   | 10 mm   |

|               |       |
|---------------|-------|
| — downwards   | 10 mm |
| — at the side | 10 mm |

### Connections/ Terminals

|  |                                    |
|--|------------------------------------|
| <b>type of electrical connection</b>                           | screw terminal                     |
| • for main current circuit                                     | screw-type terminals               |
| • for auxiliary and control circuit                            | screw-type terminals               |
| type of connectable conductor cross-sections for main contacts |                                    |
| • solid or stranded  | 2x (2,5 ... 10 mm <sup>2</sup> )   |
| • finely stranded with core end processing                     | 2x (1,5 ... 4 mm <sup>2</sup> )    |
| <b>type of connectable conductor cross-sections</b>            |                                    |
| • for auxiliary contacts                                       |                                    |
| — solid or stranded  | 2x (1 ... 2,5 mm <sup>2</sup> )    |
| — finely stranded with core end processing                     | 2x (0,75 ... 1,5 mm <sup>2</sup> ) |

### Safety related data

|  |   |
|--|---|
| product function mirror contact according to IEC 60947-4-1 | Yes; One NC contact each must be connected in series for the right and left auxiliary switch block respectively |
|--|---|

### Electrical Safety

|  |      |
|--|------|
| <b>protection class IP on the front according to IEC 60529</b> | IP00 |
|--|------|

### Approvals Certificates

| Environment | General Product Approval | Functional Safety | other |
|-------------|--------------------------|-------------------|-------|
|-------------|--------------------------|-------------------|-------|

[Environmental Con-  
firmations](#)



[Type Examination Cer-  
tificate](#)

[Confirmation](#)

### 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=3TC4417-0BV0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BV0>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC4417-0BV0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0BV0&lang=en)

#### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0BV0>

#### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



