



contactor, DC-3/DC-5, 75 A, 2-pole, 110 V AC, 50 Hz / 120 V AC, 60 Hz, auxiliary contacts: 2 NO + 2 NC, connecting bar, frame size 4

|  |                        |
|--|------------------------|
| <b>product designation</b>   | Contactor              |
| <b>product type designation</b>  | 3TC                    |
| <b>General technical data</b>  |                        |
| <b>size of contactor</b>   | 4                      |
| <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  | 10g / 5 ms, 5g / 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>   | 03/01/2017             |
| <b>SVHC substance name</b>   | Lead - 7439-92-1       |
| <b>Weight</b>  | 3.398 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  | 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>                                  | AC           |
| <b>control supply voltage at AC</b>   |              |
| ● <b>at 50 Hz rated value</b>   | 110 V        |
| ● <b>at 60 Hz rated value</b>   | 120 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>at 60 Hz</b>   | 0.85 ... 1.1 |
| <b>apparent pick-up power of magnet coil at AC</b>                                    | 300 VA       |
| ● <b>at 50 Hz</b>   | 300 VA       |
| ● <b>at 60 Hz</b>   | 365 VA       |
| <b>inductive power factor with closing power of the coil</b>                          | 0.5          |
| ● <b>at 50 Hz</b>   | 0.5          |
| ● <b>at 60 Hz</b>   | 0.45         |
| <b>apparent holding power of magnet coil at AC</b>                                    | 26 VA        |
| ● <b>at 50 Hz</b>   | 26 VA        |
| ● <b>at 60 Hz</b>   | 35 VA        |
| <b>inductive power factor with the holding power of the coil</b>                      | 0.24         |
| ● <b>at 50 Hz</b>   | 0.24         |
| ● <b>at 60 Hz</b>   | 0.26         |
| <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 3NA31 (160 A) in series (750 V, 5 kA)   |
| — with type of coordination 2 required                          | 2 x 3NA31 (63 A) in series (750 V, 5 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 fixing  |
| <b>height</b>   | 177.5 mm  |
| <b>width</b>  | 100 mm  |
| <b>depth</b>  | 156 mm  |
| <b>required spacing</b>   |   |
| • with side-by-side mounting                                    |   |
| — forwards  | 20 mm   |
| — backwards   | 0 mm  |
| — upwards   | 10 mm   |
| — downwards   | 10 mm   |
| — at the side   | 10 mm   |
| • for grounded parts  |   |
| — forwards  | 55 mm   |
| — backwards   | 0 mm  |
| — upwards   | 10 mm   |
| — at the side   | 10 mm   |
| — downwards   | 10 mm   |
| • for live parts  |   |
| — forwards  | 55 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               |
| <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   |
| Electrical Safety  |   |
| <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 |

#### Approvals Certificates

##### General Product Approval



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

[Type Examination Certificate](#)

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

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

[Transport Information](#)

[Environmental Confirmations](#)

#### 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=3TC4817-0BK6>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4817-0BK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4817-0BK6>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC4817-0BK6&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4817-0BK6&lang=en)

##### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4817-0BK6/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4817-0BK6&objecttype=14&gridview=view1>



