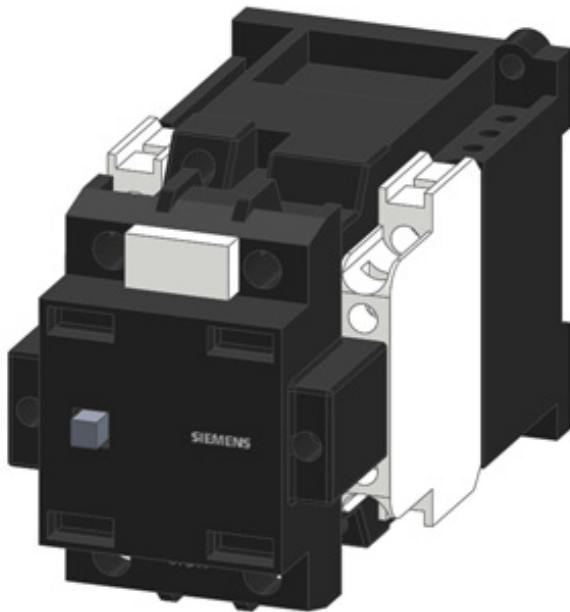


Contactor size 2, 2-pole DC-3 and 5, 32 A Auxiliary switch 22 (2 NO + 2 NC) Direct current operation 180 V DC



| | |
|---|---------------------------|
| Product designation | Contactor |
| Product type designation | 3TC |
| General technical data | |
| Size of contactor | 2 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage rated value | 800 V |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 300 V |
| Protection class IP | IP00 |
| • on the front | IP00 |
| • of the terminal | IP00 |
| Shock resistance at rectangular impulse | |
| • at DC | 7,5g / 5 ms, 3,4g / 10 ms |
| Mechanical service life (switching cycles) | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |

| | |
|--|---|
| Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | K |
| Reference code acc. to DIN EN 81346-2 | Q |
| Reference code acc. to DIN EN 61346-2 | Q |

Main circuit

| | |
|---|--|
| 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 |
| Operating current | |
| <ul style="list-style-type: none"> • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value | <ul style="list-style-type: none"> 32 A 32 A 32 A 32 A 32 A |
| Operating current with 2 current paths in series at DC-3 at DC-5 | |
| <ul style="list-style-type: none"> • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value | <ul style="list-style-type: none"> 32 A 32 A 32 A 29 A 21 A |
| Operating power at DC-1 | |
| <ul style="list-style-type: none"> • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 750 V rated value | <ul style="list-style-type: none"> 3.5 kW 7 kW 14 kW 24 kW |
| Operating frequency | |
| <ul style="list-style-type: none"> • at DC-1 maximum • at DC-3 maximum • at DC-5 maximum | <ul style="list-style-type: none"> 1 500 1/s 750 1/s 750 1/s |

Control circuit/ Control

| | |
|---|---------------|
| Type of voltage of the control supply voltage | DC |
| Control supply voltage at DC | |
| <ul style="list-style-type: none"> • rated value | 180 V |
| Closing power of magnet coil at DC | 10 W |
| Holding power of magnet coil at DC | 10 W |
| Closing delay at DC | 35 ... 190 ms |
| Opening delay at DC | 10 ... 25 ms |
| Arcing time | 20 ... 30 ms |

| Auxiliary circuit | |
|--|--|
| Number of NC contacts for auxiliary contacts | 2 |
| • instantaneous contact | 2 |
| Number of NO contacts for auxiliary contacts | 2 |
| • instantaneous contact | 2 |
| Number of CO contacts | |
| • for auxiliary contacts | 0 |
| Identification number and letter for switching elements | 22 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 5.6 A |
| • at 400 V rated value | 3.6 A |
| • at 500 V rated value | 2.5 A |
| Operating current at DC-12 | |
| • 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 |
| Operating current at DC-13 | |
| • 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 |
| Contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |

| UL/CSA ratings | |
|---|-------------|
| Contact rating of auxiliary contacts according to UL | A600 / P600 |

| Short-circuit protection | |
|---|--------------------------|
| Design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 50 A (690 V, 100 kA) |
| — with type of assignment 2 required | gG: 35 A (690 V, 100 kA) |
| • for short-circuit protection of the auxiliary switch required | gG: 16 A (500 V, 1 kA) |

Installation/ mounting/ dimensions

| | |
|--|---|
| Mounting position | +/-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 |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| <ul style="list-style-type: none"> • Side-by-side mounting | Yes |
| Height | 85 mm |
| Width | 70 mm |
| Depth | 145 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side | 15 mm 0 mm 10 mm 10 mm 10 mm 30 mm 0 mm 10 mm 10 mm 10 mm 30 mm 0 mm 10 mm 10 mm 10 mm |

Connections/ Terminals

| | |
|--|---|
| Type of electrical connection | screw-type terminals |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit | screw-type terminals screw-type terminals |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing | 2x (2,5 ... 10 mm ²) 2x (1,5 ... 4 mm ²) |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing | 2x (1 ... 2,5 mm ²) 2x (0,75 ... 2,5 mm ²) |

Safety related data

Protection against electrical shock

finger-safe only with terminal cover

Certificates/ approvals

| | | |
|--------------------------|---------------------------------------|---------------------------|
| General Product Approval | Functional Safety/Safety of Machinery | Declaration of Conformity |
|--------------------------|---------------------------------------|---------------------------|



[Type Examination Certificate](#)



| | | | |
|---------------------------|-------------------|-------------------|-------|
| Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|---------------------------|-------------------|-------------------|-------|

[Miscellaneous](#)

[Special Test Certificate](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

Further information

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4417-0AK4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AK4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AK4>

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

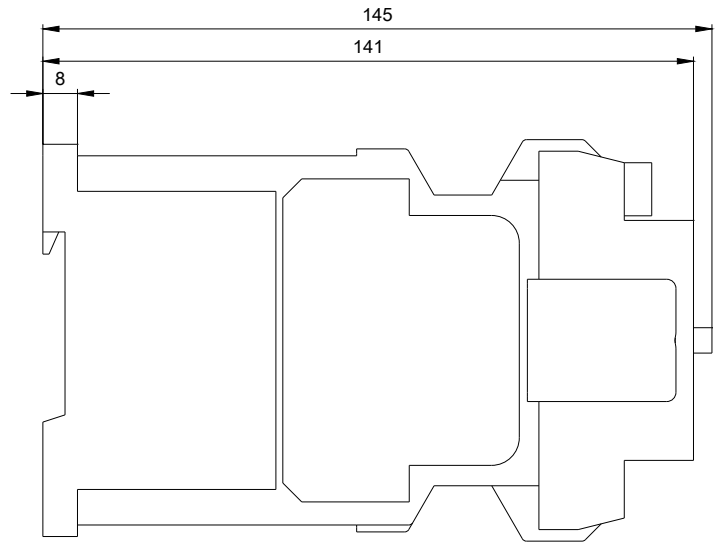
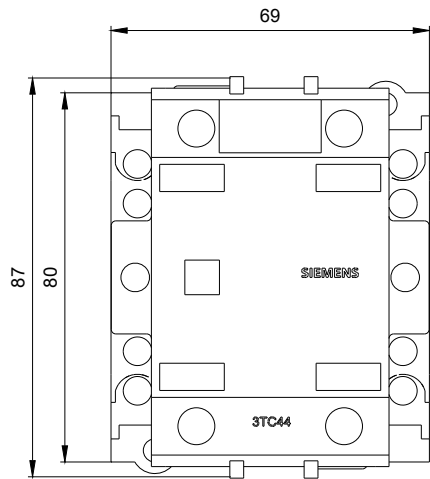
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AK4&lang=en

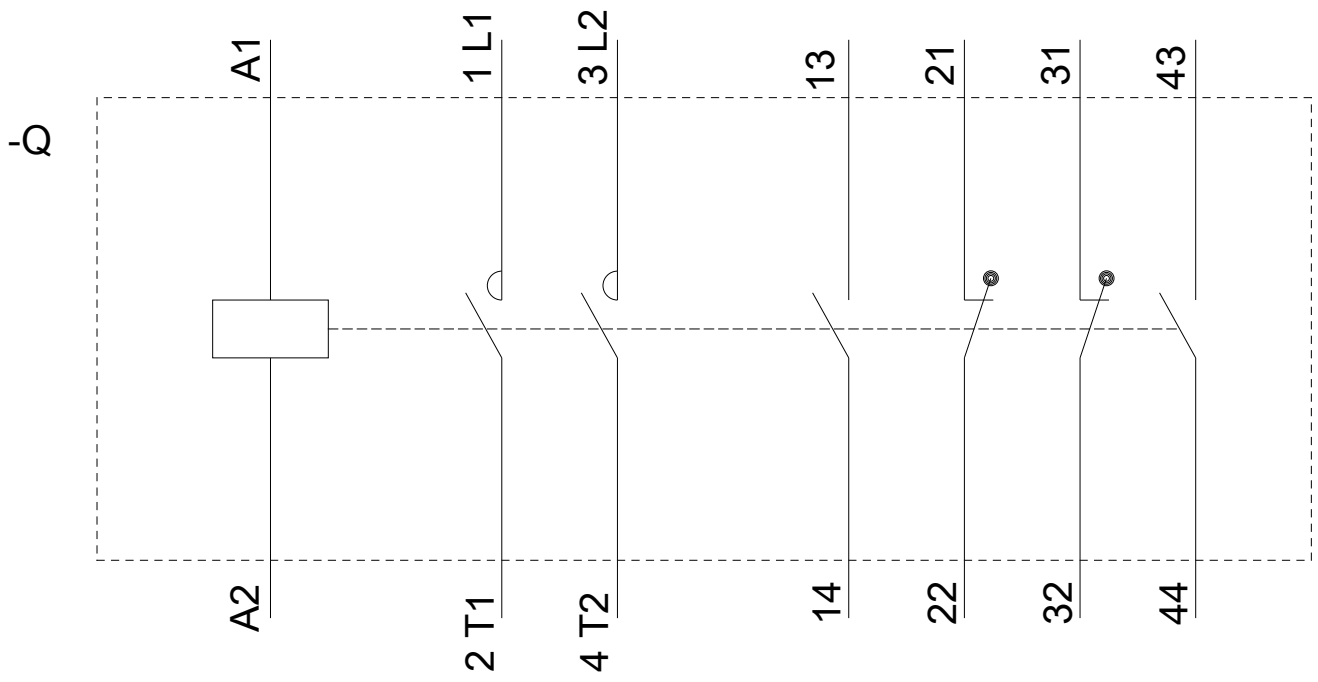
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AK4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AK4&objecttype=14&gridview=view1>





last modified:

09/12/2019