

contactor, DC-3/DC-5, 32 A, 2-pole, 33 V DC, 0.7-1.25* U_c, with varistor and series resistor, auxiliary contacts: 2 NO + 1 NC, screw terminal, frame size 2, for railway applications

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| product designation | Contactor |
| product type designation | 3TC |
| General technical data | |
| size of contactor | 2 |
| product extension | |
| • function module for communication | No |
| • auxiliary switch | No |
| insulation voltage rated value | 800 V |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 300 V |
| shock resistance at rectangular impulse | |
| • at DC | 7,5g / 5 ms, 3,4g / 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 Prohibition (Date) | 02/01/2012 |
| SVHC substance name | Lead - 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 |
| Weight | 1.41 kg |
| Ambient conditions | |
| ambient temperature | |
| • during operation | -40 ... +70 °C |
| • during storage | -50 ... +80 °C |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |
| 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 |
| operational current | |
| • 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 |

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| — 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 |
| ● at DC-3 at DC-5 | |
| — at 220 V rated value | 32 A |
| — at 600 V rated value | 21 A |
| — at 750 V rated value | 7.5 A |
| ● at 1 current path at DC-3 at DC-5 | |
| — 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-3 at DC-5 | |
| — 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 |
| operating power | |
| ● at DC-1 | |
| — 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 |
| ● at DC-3 at DC-5 | |
| — 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 |
| operating frequency | |
| ● at DC-1 maximum | 1 500 1/h |
| ● at DC-3 maximum | 750 1/h |
| ● at DC-5 maximum | 750 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC rated value | 33 V |
| design of the surge suppressor | with varistor |
| closing power of magnet coil at DC | 48 W |
| holding power of magnet coil at DC | 13 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 | 1 |
| 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 | 21 |
| operational current at AC-12 maximum | 10 A |
| operational 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 |
| operational current at DC-12 | |
| ● at 24 V rated value | 10 A |

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| <ul style="list-style-type: none"> • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | 10 A 10 A 3.2 A 2.5 A 0.9 A 0.22 A |
| operational current at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | 10 A 5 A 5 A 1.14 A 0.98 A 0.48 A 0.07 A |
| UL/CSA ratings | |
| contact rating of auxiliary contacts according to UL | A600 / P600 |
| Short-circuit protection | |
| design of the fuse link <ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of coordination 2 required • for short-circuit protection of the auxiliary switch required | 2 x 3NA3020 (50 A) in series (750 V, 3 kA) 2 x 3NA3020 (50 A) in series (750 V, 3 kA) 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 |
| fastening method side-by-side mounting | Yes |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022 |
| height | 115 mm |
| width | 82 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 <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit | screw terminal screw-type terminals screw-type terminals |
| type of connectable conductor cross-sections for main contacts <ul style="list-style-type: none"> • solid or 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"> — solid or stranded | 2x (1 ... 2.5 mm ²) |

— finely stranded with core end processing

2x (0.75 ... 1.5 mm²)

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

protection class IP on the front according to IEC 60529

IP00

Approvals Certificates

General Product Approval

Functional Safety



[Type Examination Certificate](#)

Test Certificates

other

Dangerous goods

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



[Confirmation](#)

[Transport Information](#)

Environment

[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=3TC4417-0LC8>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0LC8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LC8>

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

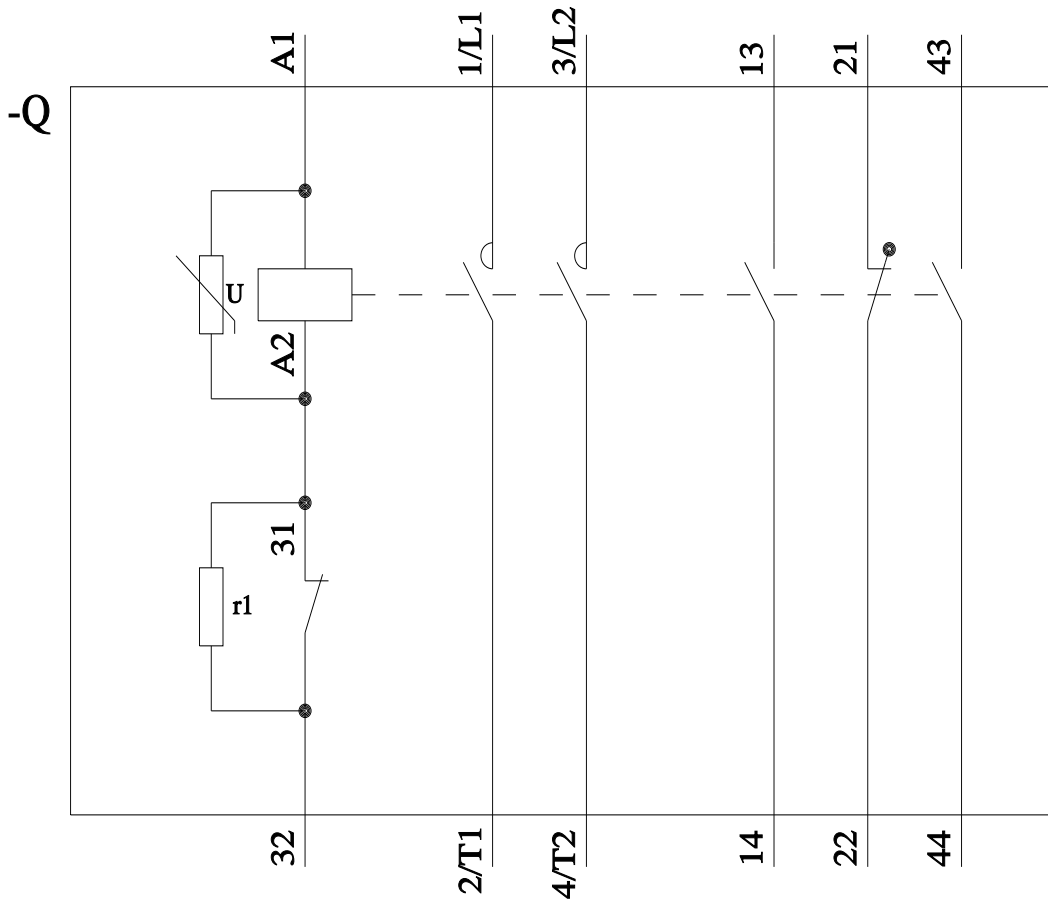
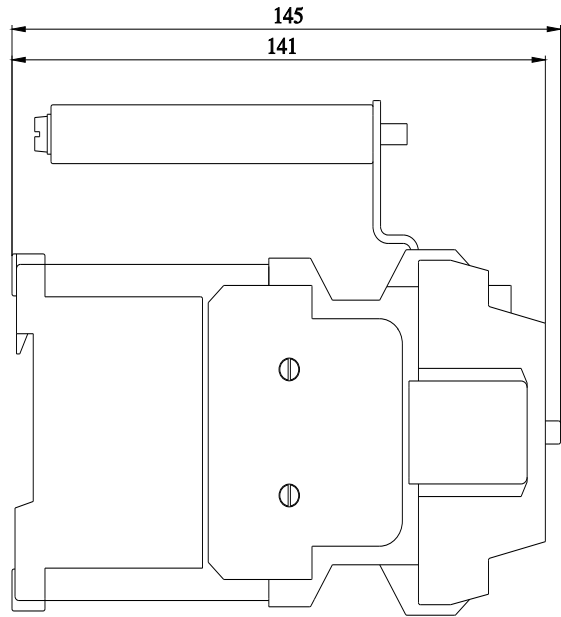
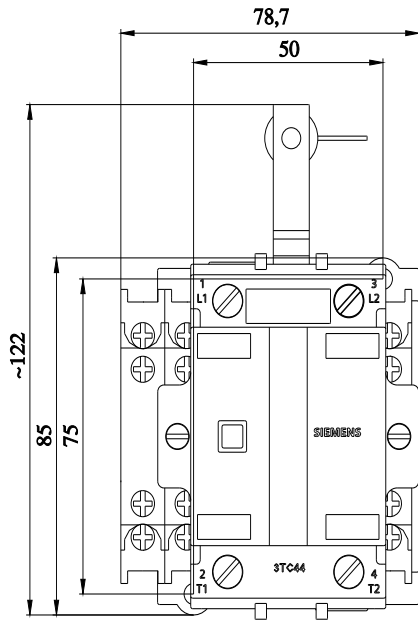
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0LC8&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LC8/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0LC8&objecttype=14&gridview=view1>



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