



contactor, DC-3/DC-5, 220 A, 2-pole, 100 V AC, 50 Hz / 120 V AC, 60 Hz, auxiliary contacts: 2 NO + 2 NC, connecting bar, frame size 8

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|--|--------------------------|
| product designation | Contactor |
| product type designation | 3TC |
| General technical data | |
| size of contactor | 8 |
| 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 AC | 12g / 5 ms, 5,5g / 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 | 6.984 kg |
| Ambient conditions | |
| 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 % |
| 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 | 220 A |
| — at 110 V rated value | 220 A |
| — at 220 V rated value | 220 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 220 A |

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|---|--------------|
| — at 110 V rated value | 220 A |
| — at 220 V rated value | 220 A |
| — at 440 V rated value | 220 A |
| — at 600 V rated value | 220 A |
| — at 750 V rated value | 220 A |
| ● at DC-3 at DC-5 | |
| — at 220 V rated value | 220 A |
| — at 600 V rated value | 220 A |
| — at 750 V rated value | 170 A |
| ● at 1 current path at DC-3 at DC-5 | |
| — at 24 V rated value | 220 A |
| — at 110 V rated value | 220 A |
| — at 220 V rated value | 220 A |
| ● with 2 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 220 A |
| — at 110 V rated value | 220 A |
| — at 220 V rated value | 220 A |
| — at 440 V rated value | 220 A |
| — at 600 V rated value | 220 A |
| — at 750 V rated value | 170 A |
| operating power | |
| ● at DC-1 | |
| — at 110 V rated value | 24 kW |
| — at 220 V rated value | 48 kW |
| — at 440 V rated value | 97 kW |
| — at 750 V rated value | 165 kW |
| ● at DC-3 at DC-5 | |
| — at 110 V rated value | 20 kW |
| — at 220 V rated value | 41 kW |
| — at 440 V rated value | 82 kW |
| — at 600 V rated value | 110 kW |
| — at 750 V rated value | 110 kW |
| operating frequency | |
| ● at DC-1 maximum | 1 000 1/h |
| ● at DC-3 maximum | 600 1/h |
| ● at DC-5 maximum | 600 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC |
| control supply voltage at AC | |
| ● at 50 Hz rated value | 100 V |
| ● at 60 Hz rated value | 120 V |
| operating range factor control supply voltage rated value of magnet coil at AC | |
| ● at 60 Hz | 0.8 ... 1.1 |
| apparent pick-up power of magnet coil at AC | 640 VA |
| ● at 50 Hz | 640 VA |
| ● at 60 Hz | 730 VA |
| inductive power factor with closing power of the coil | 0.48 |
| ● at 50 Hz | 0.48 |
| ● at 60 Hz | 0.38 |
| apparent holding power of magnet coil at AC | 46 VA |
| ● at 50 Hz | 46 VA |
| ● at 60 Hz | 56 VA |
| inductive power factor with the holding power of the coil | 0.23 |
| ● at 50 Hz | 0.23 |
| ● at 60 Hz | 0.24 |
| arcing time | 20 ... 30 ms |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 2 |

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|---|---|
| • 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 |
| 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 |
| • 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 |
| • at 600 V rated value | 0.4 A |
| operational 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 | 2.4 A |
| • at 125 V rated value | 2.1 A |
| • at 220 V rated value | 1.1 A |
| • at 600 V rated value | 0.21 A |
| 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 | 3NE1332-4D (400 A) (750 V, 6 kA) |
| — with type of coordination 2 required | 3NE1332-4D (400 A) (750 V, 6 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 |
| fastening method side-by-side mounting | Yes |
| fastening method | screw fixing |
| height | 240 mm |
| width | 135 mm |
| depth | 204 mm |
| required spacing | |
| • 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 | 70 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — at the side | 10 mm |
| — downwards | 10 mm |
| • for live parts | |
| — forwards | 70 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |

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

Connections/ Terminals

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|---|------------------------------------|
| type of electrical connection | screw terminal |
| • for main current circuit | screw-type terminals |
| • for auxiliary and control circuit | screw-type terminals |
| type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — solid or stranded | 2x (1 ... 2.5 mm ²) |
| — finely stranded with core end processing | 2x (0.75 ... 1.5 mm ²) |

Safety related data

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|--|---|
| product function mirror contact according to IEC 60947-4-1 | Yes |
| Electrical Safety | |
| protection class IP on the front according to IEC 60529 | IP00; IP20 with box terminal/cover |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front with cover |

Approvals Certificates

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|--------------------------|-------------------|
| General Product Approval | Functional Safety |
|--------------------------|-------------------|



[Type Examination Certificate](#)

| | | |
|-------------------|-------|---------|
| Test Certificates | other | Railway |
|-------------------|-------|---------|

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



[Confirmation](#)

[Confirmation](#)

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|-----------------|-------------|
| 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=3TC5217-0BK1>
- Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5217-0BK1>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3TC5217-0BK1>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5217-0BK1&lang=en
- Characteristic: Tripping characteristics, I_t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3TC5217-0BK1/char>
- Further characteristics (e.g. electrical endurance, switching frequency)
<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5217-0BK1&objecttype=14&gridview=view1>



