

power contactor, AC-3 25 A, 11 kW / 400 V 2 NO + 2 NC, 230 V AC, 50 Hz, 3-pole, Size S0 screw terminal Removable auxiliary switch



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| Product brand name | SIRIUS |
| Product designation | Power contactor |
| Product type designation | 3RT2 |
| General technical data | |
| Size of contactor | S0 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | No |
| Power loss [W] for rated value of the current | |
| • at AC in hot operating state | 4.8 W |
| • at AC in hot operating state per pole | 1.6 W |
| Power loss [W] for rated value of the current without load current share typical | 9.8 W |
| Surge voltage resistance | |
| • of main circuit rated value | 6 kV |
| • of auxiliary circuit rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 400 V |

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| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance at rectangular impulse | |
| • at AC | 8,3g / 5 ms, 5,3g / 10 ms |
| Shock resistance with sine pulse | |
| • at AC | 13,5g / 5 ms, 8,3g / 10 ms |
| Mechanical service life (switching cycles) | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added electronics-compatible auxiliary switch block typical | 5 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

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| Installation altitude at height above sea level | |
| • maximum | 2 000 m |
| Ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |

Main circuit

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| Number of poles for main current circuit | 3 |
| Number of NO contacts for main contacts | 3 |
| Operating voltage | |
| • at AC-3 rated value maximum | 690 V |
| Operating current | |
| • at AC-1 at 400 V | |
| — at ambient temperature 40 °C rated value | 40 A |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 40 A |
| — up to 690 V at ambient temperature 60 °C rated value | 35 A |
| • at AC-2 at 400 V rated value | 25 A |
| • at AC-3 | |
| — at 400 V rated value | 25 A |
| — at 500 V rated value | 18 A |
| — at 690 V rated value | 13 A |
| • at AC-4 at 400 V rated value | 15.5 A |
| • at AC-5a up to 690 V rated value | 35.2 A |
| • at AC-5b up to 400 V rated value | 20.7 A |
| • at AC-6a | |

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| — up to 230 V for current peak value n=20 rated value | 20.2 A |
| — up to 400 V for current peak value n=20 rated value | 20.2 A |
| — up to 500 V for current peak value n=20 rated value | 20.2 A |
| — up to 690 V for current peak value n=20 rated value | 12.9 A |
| • at AC-6a | |
| — up to 230 V for current peak value n=30 rated value | 13.5 A |
| — up to 400 V for current peak value n=30 rated value | 13.5 A |
| — up to 500 V for current peak value n=30 rated value | 13.5 A |
| — up to 690 V for current peak value n=30 rated value | 13 A |
| Minimum cross-section in main circuit | |
| • at maximum AC-1 rated value | 10 mm ² |
| Operating current for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 9 A |
| • at 690 V rated value | 9 A |
| Operating current | |
| • at 1 current path at DC-1 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 4.5 A |
| — at 220 V rated value | 1 A |
| — at 440 V rated value | 0.4 A |
| — at 600 V rated value | 0.25 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 35 A |
| — at 220 V rated value | 5 A |
| — at 440 V rated value | 1 A |
| — at 600 V rated value | 0.8 A |
| • with 3 current paths in series at DC-1 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 35 A |
| — at 220 V rated value | 35 A |
| — at 440 V rated value | 2.9 A |
| — at 600 V rated value | 1.4 A |
| Operating current | |

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| <ul style="list-style-type: none"> • at 1 current path 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 • 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 • with 3 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 | 20 A 2.5 A 1 A 0.09 A 0.06 A 35 A 15 A 3 A 0.27 A 0.16 A 35 A 35 A 10 A 0.6 A 0.6 A |
| Operating power <ul style="list-style-type: none"> • at AC-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | 11 kW 5.5 kW 11 kW 11 kW 11 kW |
| Operating power for approx. 200000 operating cycles at AC-4 <ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value | 4.4 kW 7.7 kW |
| Operating apparent output at AC-6a <ul style="list-style-type: none"> • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value | 8 000 V·A 13 900 V·A 17 400 V·A 15 400 V·A |
| Operating apparent output at AC-6a <ul style="list-style-type: none"> • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value | 5 300 V·A 9 300 V·A |

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| <ul style="list-style-type: none"> • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value | 11 600 V·A 15 500 V·A |
| Short-time withstand current in cold operating state up to 40 °C <ul style="list-style-type: none"> • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum | 375 A; Use minimum cross-section acc. to AC-1 rated value 299 A; Use minimum cross-section acc. to AC-1 rated value 200 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 106 A; Use minimum cross-section acc. to AC-1 rated value |
| No-load switching frequency <ul style="list-style-type: none"> • at AC | 5 000 1/h |
| Operating frequency <ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum | 1 000 1/h 750 1/h 750 1/h 250 1/h |
| Control circuit/ Control | |
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC <ul style="list-style-type: none"> • at 50 Hz rated value | 230 V |
| Operating range factor control supply voltage rated value of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz | 0.8 ... 1.1 |
| Apparent pick-up power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz | 77 V·A |
| Inductive power factor with closing power of the coil <ul style="list-style-type: none"> • at 50 Hz | 0.82 |
| Apparent holding power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz | 9.8 V·A |
| Inductive power factor with the holding power of the coil <ul style="list-style-type: none"> • at 50 Hz | 0.25 |
| Closing delay <ul style="list-style-type: none"> • at AC | 8 ... 40 ms |
| Opening delay <ul style="list-style-type: none"> • at AC | 4 ... 16 ms |

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| Arcing time | 10 ... 10 ms |
| Control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| Number of NC contacts for auxiliary contacts | |
| • instantaneous contact | 2 |
| Number of NO contacts for auxiliary contacts | |
| • instantaneous contact | 2 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 6 A |
| • at 400 V rated value | 3 A |
| • at 500 V rated value | 2 A |
| • at 690 V rated value | 1 A |
| Operating current at DC-12 | |
| • at 24 V rated value | 10 A |
| • at 48 V rated value | 6 A |
| • at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 125 V rated value | 2 A |
| • at 220 V rated value | 1 A |
| • at 600 V rated value | 0.15 A |
| Operating current at DC-13 | |
| • at 24 V rated value | 6 A |
| • at 48 V rated value | 2 A |
| • at 60 V rated value | 2 A |
| • at 110 V rated value | 1 A |
| • at 125 V rated value | 0.9 A |
| • at 220 V rated value | 0.3 A |
| • at 600 V rated value | 0.1 A |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 21 A |
| • at 600 V rated value | 22 A |
| Yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 110/120 V rated value | 2 hp |
| — at 230 V rated value | 3 hp |
| • for three-phase AC motor | |
| — at 200/208 V rated value | 5 hp |
| — at 220/230 V rated value | 7.5 hp |

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| — at 460/480 V rated value | 15 hp |
| — at 575/600 V rated value | 20 hp |
| Contact rating of auxiliary contacts according to UL | A600 / Q600 |

Short-circuit protection

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| 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 assignment 2 required for short-circuit protection of the auxiliary switch required | <p>gG: 100 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 100 A (415 V, 80 kA)</p> <p>gG: 35A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA)</p> <p>gG: 10 A (500 V, 1 kA)</p> |

Installation/ mounting/ dimensions

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| Mounting position | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <ul style="list-style-type: none"> Side-by-side mounting | Yes |
| Height | 85 mm |
| Width | 45 mm |
| Depth | 141 mm |
| Required spacing | |
| <ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards upwards downwards at the side for grounded parts <ul style="list-style-type: none"> forwards upwards at the side downwards for live parts <ul style="list-style-type: none"> forwards upwards downwards at the side | <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>6 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>6 mm</p> |






Connections/ Terminals



| | |
|---|---|
| Type of electrical connection | |
| <ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit | <p>screw-type terminals</p> <p>screw-type terminals</p> |






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| <ul style="list-style-type: none"> • at contactor for auxiliary contacts • of magnet coil | 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"> — solid — single or multi-stranded — finely stranded with core end processing • at AWG conductors for main contacts | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) 2x (1 ... 2,5 mm ²), 2x (2,5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (16 ... 12), 2x (14 ... 8) |
| Connectable conductor cross-section for main contacts <ul style="list-style-type: none"> • solid • stranded • finely stranded with core end processing | 1 ... 10 mm ² 1 ... 10 mm ² 1 ... 10 mm ² |
| Connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • single or multi-stranded • finely stranded with core end processing | 0.5 ... 2.5 mm ² 0.5 ... 2.5 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 • at AWG conductors for auxiliary contacts | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14) |
| AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> • for main contacts • for auxiliary contacts | 16 ... 8 20 ... 14 |


| Safety related data | |
|---|--------------|
| B10 value <ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 | 1 000 000 |
| Proportion of dangerous failures <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 | 40 % 73 % |
| Failure rate [FIT] <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 | 100 FIT |
| Product function <ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 | Yes No |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| Protection against electrical shock | finger-safe |
| Suitability for use safety-related switching OFF | Yes |

Certificates/ approvals

| General Product Approval | | | | | EMC |
|--|--|---|--------------------|--|--|
|  CCC |  CSA |  UL | KC |  EAC |  RCM |

| Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates | | Marine / Shipping |
|--|---|-------------------------------|--|--|
| Type Examination Certificate |  EG-Konf. | Miscellaneous | Type Test Certificates/Test Report | Special Test Certificate |
| | | | |  ABS |

| Marine / Shipping | other | | | | |
|---|--|---|---|---|------------------------------|
|  BUREAU VERITAS |  LRS |  RINA |  RMRS |  DNV GL | Confirmation |

| other |
|--|
|  VDE |

Further information

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=3RT2026-1AP04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-1AP04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AP04>

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

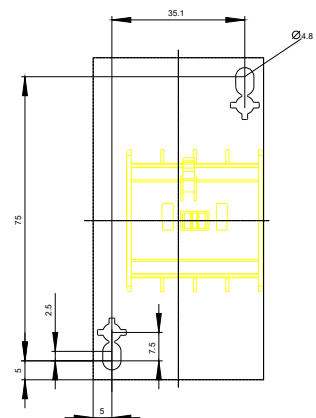
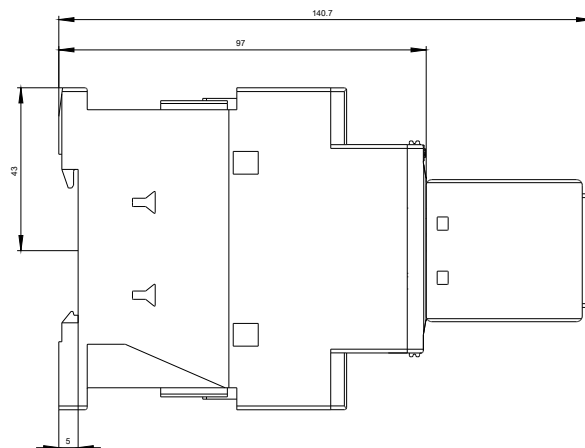
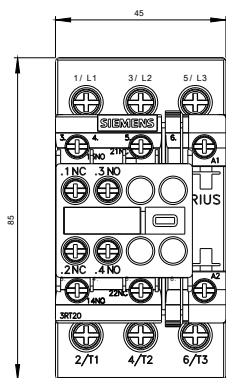
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-1AP04&lang=en

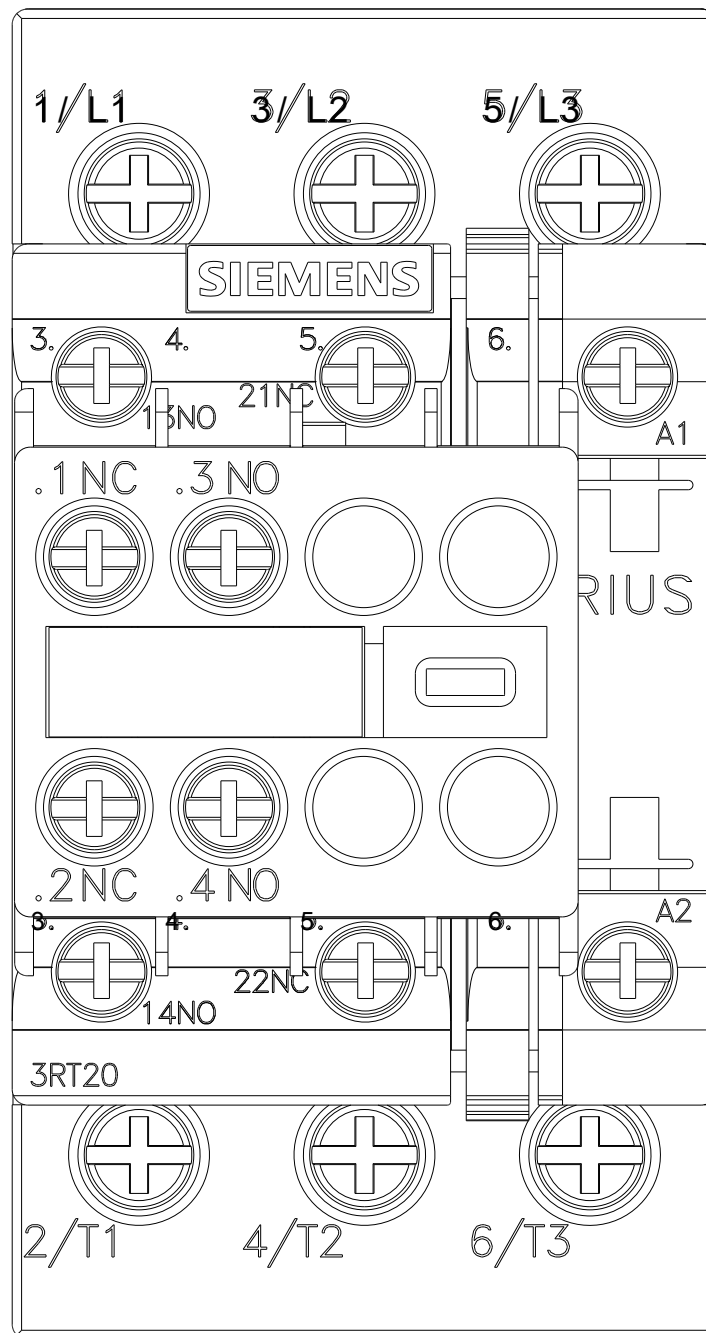
Characteristic: Tripping characteristics, I²t, Let-through current

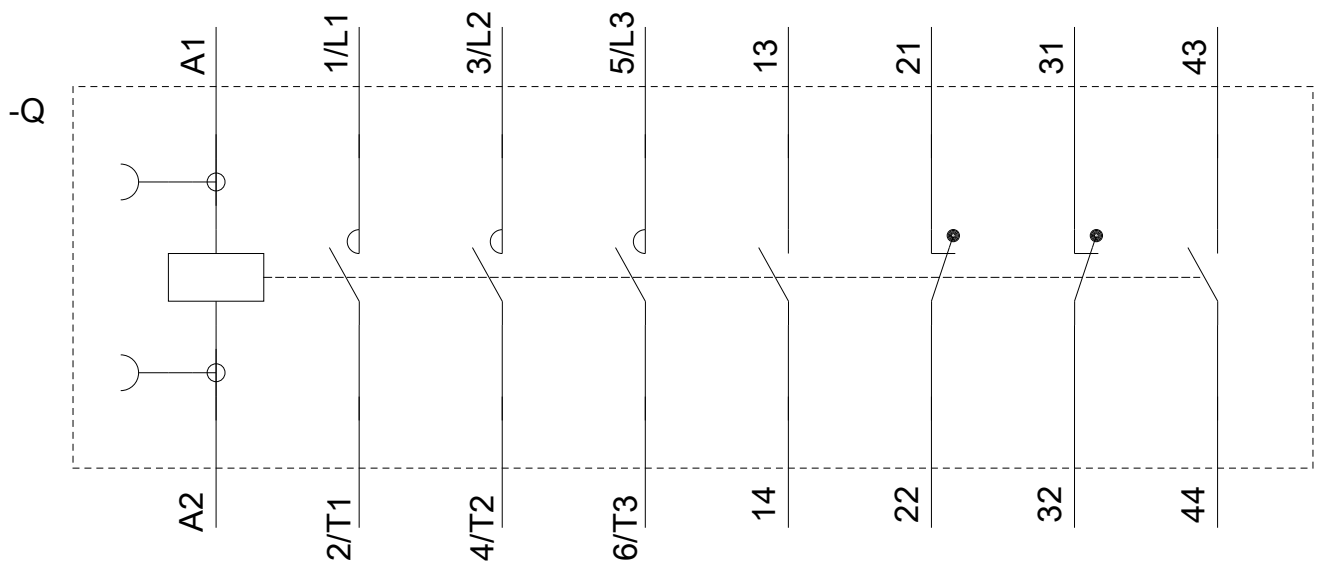
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AP04/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2026-1AP04&objecttype=14&gridview=view1>







last modified:

05/15/2020