

CONTACTOR, AC-3, 3KW/400V, 1NO, DC 24V, 3-POLE, SZ S00
SCREW TERMINAL



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| product brand name | SIRIUS |
| Product designation | 3RT2 contactor |
| General technical data: | |
| Size of contactor | S00 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage | |
| • rated value | 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 400 V |
| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance | |
| • at rectangular impulse | |

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| <ul style="list-style-type: none"> — at DC • with sine pulse — at DC | 6,7g / 5 ms, 4,2g / 10 ms |
| Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of contactor typical • of the contactor with added electronics-compatible auxiliary switch block typical • of the contactor with added auxiliary switch block typical | 30 000 000 5 000 000 10 000 000 |

| Ambient conditions: | |
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| Installation altitude at height above sea level maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during storage | -25 ... +60 °C -55 ... +80 °C |

| Main circuit: | |
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| Number of NO contacts for main contacts | 3 |
| Number of NC contacts for main contacts | 0 |
| Operating voltage | |
| <ul style="list-style-type: none"> • at AC-3 rated value maximum | 690 V |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value • at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value — at ambient temperature 60 °C rated value • at AC-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value — at 690 V rated value | 18 A 18 A 16 A 7 A 7 A 6 A 4.9 A |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible | 2.5 mm ² 2.5 mm ² |
| Operating current for approx. 200000 operating cycles at AC-4 | |
| <ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value | 2.6 A 1.8 A |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value | 15 A |

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| — at 110 V rated value | 1.5 A |
| — at 220 V rated value | 0.6 A |
| — at 440 V rated value | 0.42 A |
| — at 600 V rated value | 0.42 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 8.4 A |
| — at 220 V rated value | 1.2 A |
| — at 440 V rated value | 0.6 A |
| — at 600 V rated value | 0.5 A |
| • with 3 current paths in series at DC-1 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 15 A |
| — at 440 V rated value | 0.9 A |
| — at 600 V rated value | 0.7 A |
| Operating current | |
| • at 1 current path at DC-3 at DC-5 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 0.1 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 110 V rated value | 0.25 A |
| — at 24 V rated value | 15 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 1.2 A |
| — at 24 V rated value | 15 A |
| — at 440 V rated value | 0.14 A |
| — at 600 V rated value | 0.14 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V rated value | 6.3 kW |
| — at 230 V at 60 °C rated value | 6 kW |
| — at 400 V rated value | 11 kW |
| — at 400 V at 60 °C rated value | 10.5 kW |
| — at 690 V rated value | 19 kW |
| — at 690 V at 60 °C rated value | 18 kW |
| • at AC-2 at 400 V rated value | 3 kW |
| • at AC-3 | |
| — at 230 V rated value | 1.5 kW |
| — at 400 V rated value | 3 kW |

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| — at 690 V rated value | 4 kW |
| Operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 1.15 kW |
| • at 690 V rated value | 1.15 kW |
| Thermal short-time current limited to 10 s | 56 A |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 0.4 W |
| No-load switching frequency | |
| • at DC | 10 000 1/h |
| Operating frequency | |
| • at AC-1 maximum | 1 000 1/h |
| • at AC-2 maximum | 750 1/h |
| • at AC-3 maximum | 750 1/h |
| • at AC-4 maximum | 250 1/h |

| Control circuit/ Control: | |
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| Type of voltage of the control supply voltage | DC |
| Control supply voltage at DC | |
| • rated value | 24 V |
| Operating range factor control supply voltage rated value of magnet coil at DC | 0.8 ... 1.1 |
| Closing power of magnet coil at DC | 4 W |
| Holding power of magnet coil at DC | 4 W |
| Closing delay | |
| • at DC | 30 ... 100 ms |
| Opening delay | |
| • at DC | 7 ... 13 ms |
| Arcing time | 10 ... 15 ms |
| Residual current of the electronics for control with signal <0> | |
| • at AC at 230 V maximum permissible | 3 mA |
| • at DC at 24 V maximum permissible | 10 mA |

| Auxiliary circuit: | |
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| Number of NC contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Number of NO contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 1 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 10 A |

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| <ul style="list-style-type: none"> • at 400 V rated value • at 500 V rated value • at 690 V rated value | 3 A 2 A 1 A |
| Operating current at DC-12 | |
| <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 6 A 6 A 3 A 2 A 1 A 0.15 A |
| Operating 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 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings:

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| Full-load current (FLA) for three-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value | 4.8 A 6.1 A |
| Yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value | 0.25 hp 0.75 hp 1.5 hp 2 hp 3 hp 5 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 | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gL/gG: 10 A |

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 50022 |
| <ul style="list-style-type: none"> • Side-by-side mounting | Yes |
| Height | 58 mm |
| Width | 45 mm |
| Depth | 73 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 | 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm |

Connections/ Terminals:

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| Type of electrical connection | |
| <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"> — solid — single or multi-stranded — finely stranded with core end processing • at AWG conductors for main contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| 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 | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² |

- finely stranded with core end processing
- at AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 2x (20 ... 16), 2x (18 ... 14), 2x 12

Safety related data:

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| B10 value | |
| • with high demand rate acc. to SN 31920 | 1 000 000 |
| Proportion of dangerous failures | |
| • with low demand rate acc. to SN 31920 | 40 % |
| • with high demand rate acc. to SN 31920 | 73 % |
| Failure rate [FIT] | |
| • with low demand rate acc. to SN 31920 | 100 FIT |
| Product function | |
| • Mirror contact acc. to IEC 60947-4-1 | Yes; with 3RH29 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |

Certificates/approvals

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| General Product Approval | Functional Safety/Safety of Machinery |
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| Declaration of Conformity | Test Certificates | Shipping Approval |
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Shipping Approval



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Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3RT20151BB41>

Cax online generator

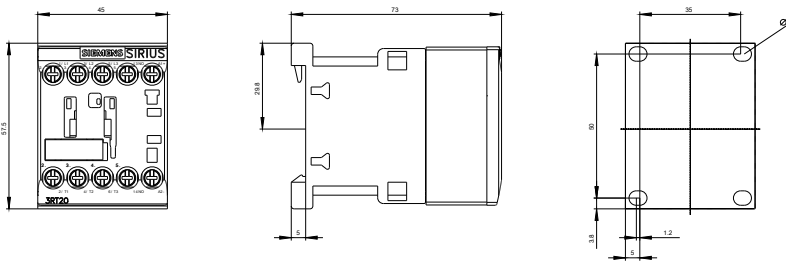
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT20151BB41>

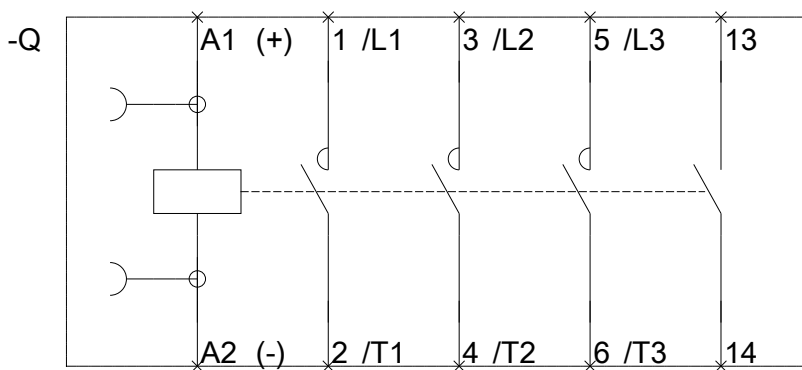
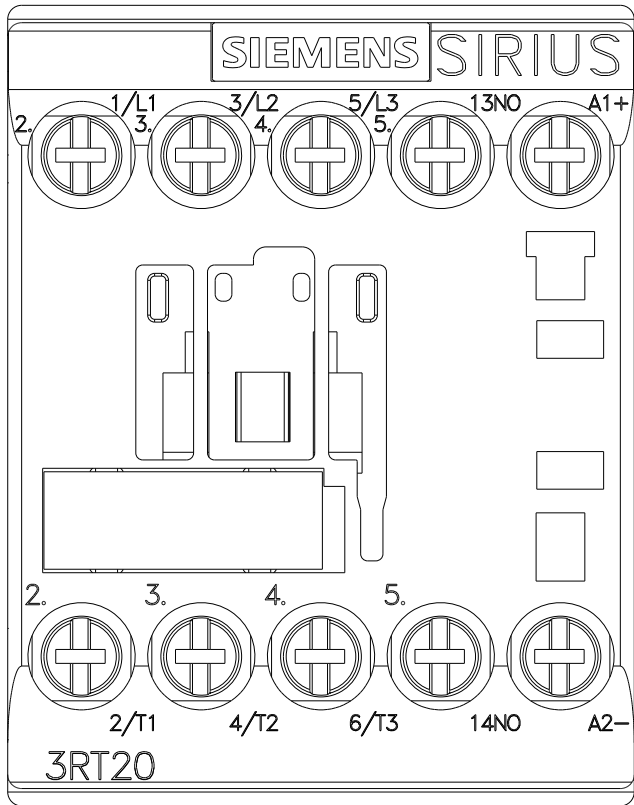
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20151BB41>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT20151BB41&lang=en





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