

CONTACTOR, AC-3, 3KW/400V, 1NC, AC 230V, 50/60 HZ, 3-POLE, SZ S00 SCREW TERMINAL



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| product brandname | SIRIUS |
| Product designation | Power contactor |
| Product type designation | 3RT2 |
| General technical data | |
| Size of contactor | S00 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage | |
| • rated value | 690 V |
| 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 | |
| • at AC | 6,7g / 5 ms, 4,2g / 10 ms |

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

Ambient conditions

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| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -25 ... +60 °C |
| <ul style="list-style-type: none"> • 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 | |
| <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 | 18 A |
| <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value | 18 A |
| <ul style="list-style-type: none"> — up to 690 V at ambient temperature 60 °C rated value | 16 A |
| <ul style="list-style-type: none"> • at AC-2 at 400 V rated value | 7 A |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 7 A |
| <ul style="list-style-type: none"> — at 500 V rated value | 6 A |
| <ul style="list-style-type: none"> — at 690 V rated value | 4.9 A |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible | 2.5 mm ² |
| <ul style="list-style-type: none"> • at 40 °C minimum permissible | 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 | 2.6 A |
| <ul style="list-style-type: none"> • at 690 V rated value | 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 |
| <ul style="list-style-type: none"> — at 110 V rated value | 1.5 A |

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| — 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 24 V rated value | 15 A |
| — at 110 V rated value | 0.25 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 1.2 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 |
| — at 690 V rated value | 4 kW |

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| 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 | <p>1.15 kW</p> <p>1.15 kW</p> |
| 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 | |
| <ul style="list-style-type: none"> • at AC | 10 000 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 | <p>1 000 1/h</p> <p>750 1/h</p> <p>750 1/h</p> <p>250 1/h</p> |

| 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 • at 60 Hz rated value | <p>230 V</p> <p>230 V</p> |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | <p>0.8 ... 1.1</p> <p>0.85 ... 1.1</p> |
| Apparent pick-up power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | <p>27 V·A</p> <p>31.7 V·A</p> |
| Inductive power factor with closing power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | <p>0.8</p> <p>0.81</p> |
| Apparent holding power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | <p>4.2 V·A</p> <p>4.8 V·A</p> |
| Inductive power factor with the holding power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | <p>0.25</p> <p>0.25</p> |
| Closing delay | |
| <ul style="list-style-type: none"> • at AC | 9 ... 35 ms |
| Opening delay | |
| <ul style="list-style-type: none"> • at AC | 3.5 ... 14 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 | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact 1 | |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| <ul style="list-style-type: none"> • at 230 V rated value 10 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 | |
| <ul style="list-style-type: none"> • 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 | |
| <ul style="list-style-type: none"> • at 24 V rated value 10 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

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| Full-load current (FLA) for three-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value 4.8 A • at 600 V rated value 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 0.25 hp — at 230 V rated value 0.75 hp • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value 1.5 hp — at 220/230 V rated value 2 hp — at 460/480 V rated value 3 hp | |

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| — at 575/600 V rated value | 5 hp |
| Contact rating of auxiliary contacts according to UL | A600 / Q600 |
| 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 assignment 2 required • for short-circuit protection of the auxiliary switch required | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A |
| Installation/ mounting/ dimensions | |
| Mounting position | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type <ul style="list-style-type: none"> • Side-by-side mounting | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes |
| Height | 58 mm |
| Width | 45 mm |
| Depth | 73 mm |
| Required spacing <ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side • for live parts <ul style="list-style-type: none"> — at the side | 6 mm 6 mm |
| Connections/Terminals | |
| 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 — 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 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 |
| Safety related data | |
| B10 value | |

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| • 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 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| Protection against electrical shock | finger-safe |

Certificates/approvals

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| General Product Approval | Functional Safety/Safety of Machinery |
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[Type Examination](#)

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| Declaration of Conformity | Test Certificates | Shipping Approval |
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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| Shipping Approval | other |
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[Confirmation](#)

[Environmental Confirmations](#)

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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?mlfb=3RT2015-1AP02>

Cax online generator

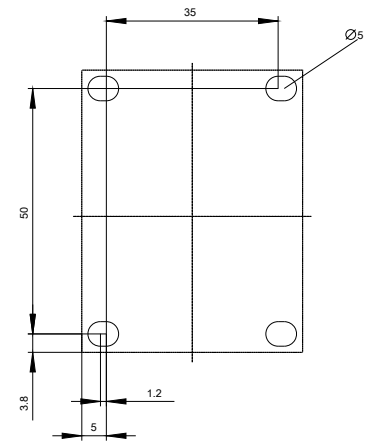
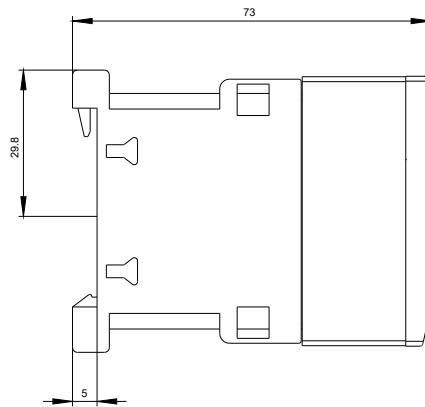
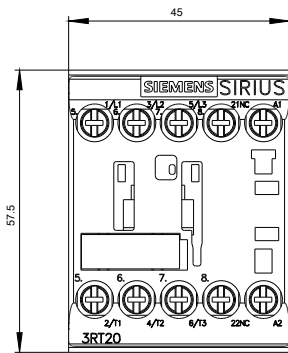
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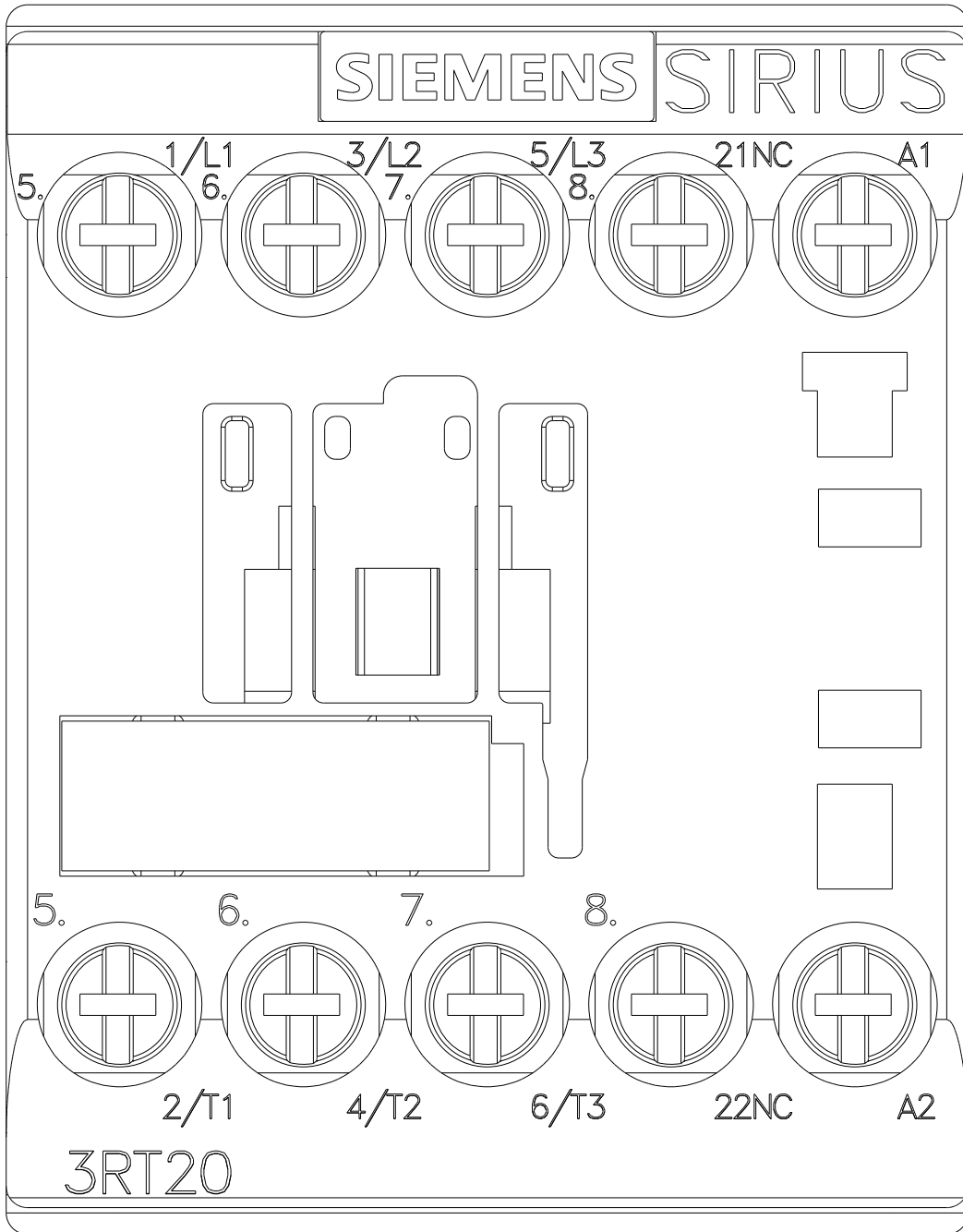
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

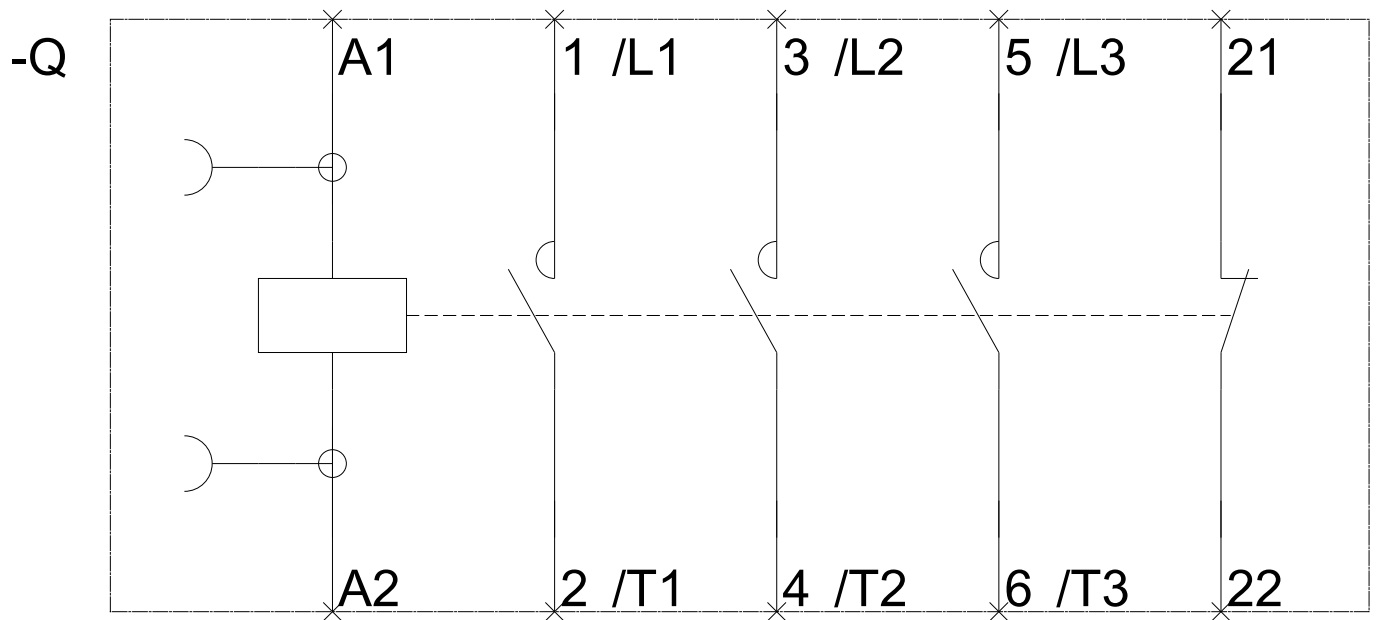
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-1AP02>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AP02&lang=en







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