

Contactor, 4 NO, AC-1: 40 A 24 V DC, 4-pole, 4 NO, Size S0, Screw terminal 1 NO + 1 NC integrated



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|--------------------------|-----------|
| Product brand name | SIRIUS |
| Product designation | Contactor |
| Product type designation | 3RT23 |

| General technical data | |
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| Size of contactor | S0 |
| Product extension | <ul style="list-style-type: none"> • function module for communication No • Auxiliary switch Yes |
| Insulation voltage | <ul style="list-style-type: none"> • rated value 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | <ul style="list-style-type: none"> • between coil and main contacts acc. to EN 60947-1 400 V |
| Protection class IP | <ul style="list-style-type: none"> • 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 | 10g / 5 ms, 7,5g / 10 ms |
| Shock resistance with sine pulse | |
| <ul style="list-style-type: none"> • at DC | 15g / 5 ms, 10g / 10 ms |
| Mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> • of contactor typical | 10 000 000 |
| <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 |
| Reference identifier acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | K |

Ambient conditions

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| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> • maximum | 2 000 m |
| 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 | 4 |
| Number of NO contacts for main contacts | 4 |
| 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 | 40 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 | 40 A |
| <ul style="list-style-type: none"> — up to 690 V at ambient temperature 60 °C rated value | 35 A |
| <ul style="list-style-type: none"> • at AC-2 at 400 V rated value | 17 A |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 15.5 A |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible | 10 mm ² |
| <ul style="list-style-type: none"> • at 40 °C minimum permissible | 10 mm ² |
| 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 | 35 A |
| <ul style="list-style-type: none"> — at 110 V rated value | 4.5 A |
| <ul style="list-style-type: none"> — at 220 V rated value | 1 A |

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|---|--------|
| — at 440 V rated value | 0.4 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 | 1 A |
| — at 440 V rated value | 1 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 |
| Operating current | |
| • at 1 current path at DC-3 at DC-5 | |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 2.5 A |
| — at 220 V rated value | 1 A |
| — at 440 V rated value | 0.09 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 3 A |
| — at 440 V rated value | 0.27 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 35 A |
| — at 220 V rated value | 10 A |
| — at 440 V rated value | 0.6 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V rated value | 23 kW |
| — at 230 V at 60 °C rated value | 13 kW |
| — at 400 V rated value | 23 kW |
| — at 400 V at 60 °C rated value | 23 kW |
| • at AC-2 at 400 V rated value | 9 kW |
| • at AC-3 | |
| — at 230 V rated value | 4 kW |
| — at 400 V rated value | 7.5 kW |
| Thermal short-time current limited to 10 s | 200 A |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 1.6 W |
| No-load switching frequency | |

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| <ul style="list-style-type: none"> • at DC | 1 500 1/h |
| Operating frequency | |
| <ul style="list-style-type: none"> • at AC-1 maximum | 1 000 1/h |
| <ul style="list-style-type: none"> • at AC-2 maximum | 750 1/h |
| <ul style="list-style-type: none"> • at AC-3 maximum | 750 1/h |
| <ul style="list-style-type: none"> • 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 | |
| <ul style="list-style-type: none"> • rated value | 24 V |
| Operating range factor control supply voltage rated value of magnet coil at DC | |
| <ul style="list-style-type: none"> • initial value | 0.8 |
| <ul style="list-style-type: none"> • Full-scale value | 1.1 |
| Closing power of magnet coil at DC | 5.9 W |
| Holding power of magnet coil at DC | 5.9 W |
| Closing delay | |
| <ul style="list-style-type: none"> • at DC | 50 ... 170 ms |
| Opening delay | |
| <ul style="list-style-type: none"> • at DC | 15 ... 17.5 ms |
| Arcing time | 10 ... 10 ms |
| Control version of the switch operating mechanism | Standard A1 - A2 |

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 |
| Number of NO 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 |
| <ul style="list-style-type: none"> • at 400 V rated value | 3 A |
| <ul style="list-style-type: none"> • at 500 V rated value | 2 A |
| <ul style="list-style-type: none"> • 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 |
| <ul style="list-style-type: none"> • at 48 V rated value | 6 A |
| <ul style="list-style-type: none"> • at 60 V rated value | 6 A |
| <ul style="list-style-type: none"> • at 110 V rated value | 3 A |
| <ul style="list-style-type: none"> • at 125 V rated value | 2 A |

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|---|---|
| <ul style="list-style-type: none"> • at 220 V rated value • at 600 V rated value | <p>1 A</p> <p>0.15 A</p> |
| 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 | <p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p> |
| 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 | <p>14 A</p> <p>17 A</p> |
| 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 | <p>1 hp</p> <p>3 hp</p> <p>3 hp</p> <p>5 hp</p> <p>10 hp</p> <p>15 hp</p> |
| 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 NH 3NA, DIAZED 5SB, NEOZED 5SE: 63 A</p> <p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 A</p> <p>fuse gG: 10 A</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 | 60 mm |

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| Depth | 107 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — at the side 6 mm — downwards 0 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 6 mm | |

Connections/Terminals

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| Type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit screw-type terminals • for auxiliary and control current circuit 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 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²) — single or multi-stranded 2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²) — finely stranded with core end processing 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² • at AWG conductors for main contacts 2x (16 ... 12), 2x (14 ... 8) | |
| Connectable conductor cross-section for main contacts | |
| <ul style="list-style-type: none"> • solid 1 ... 10 mm² • stranded 1 ... 10 mm² | |
| 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 mm²), 2x (0,75 ... 2,5 mm²) — finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) • at AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14) | |

Safety related data






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| 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

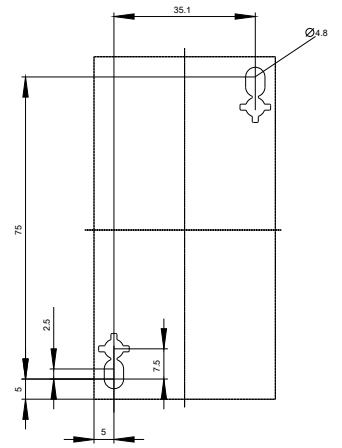
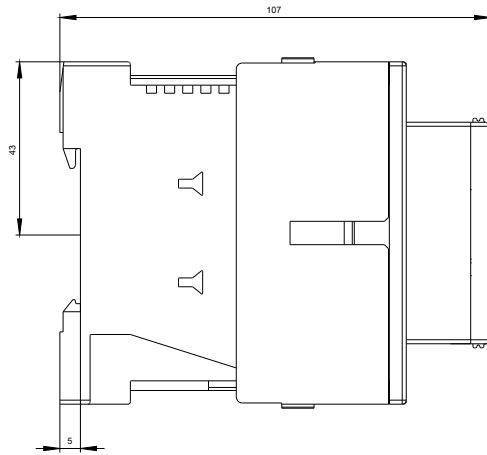
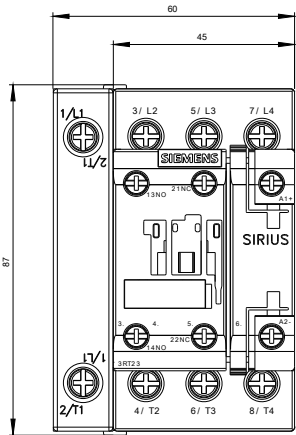
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|--|--|---|
| General Product Approval | EMC | Functional Safety/Safety of Machinery |
|  CCC |  EAC |  C-Tick |
|  CSA |  UL | Type Examination |

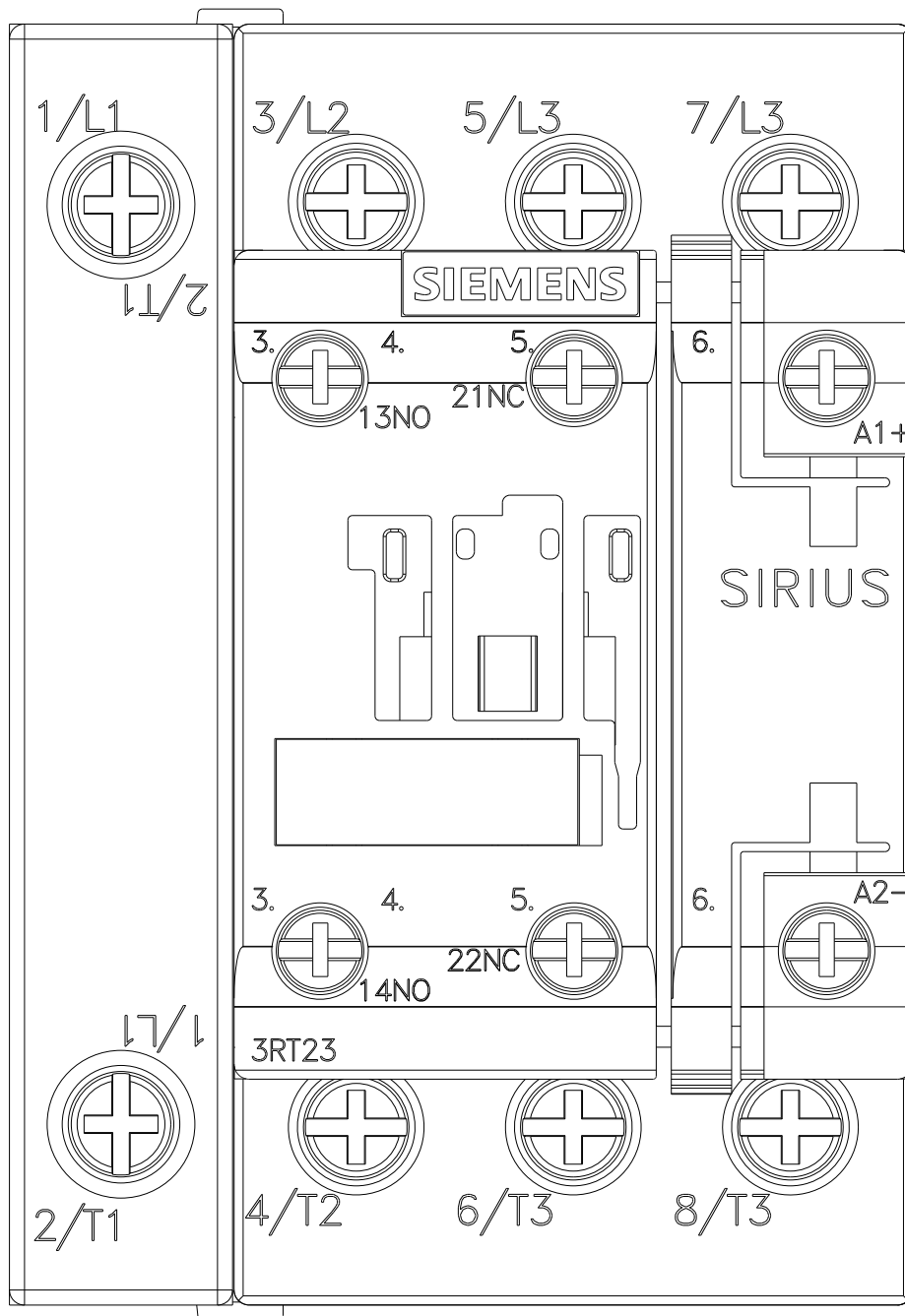
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| Declaration of Conformity | Test Certificates | Marine / Shipping | | | |
|  EG-Konf. | Type Test Certificates/Test Report |  ABS |  BUREAU VERITAS |  GL |  LRS |

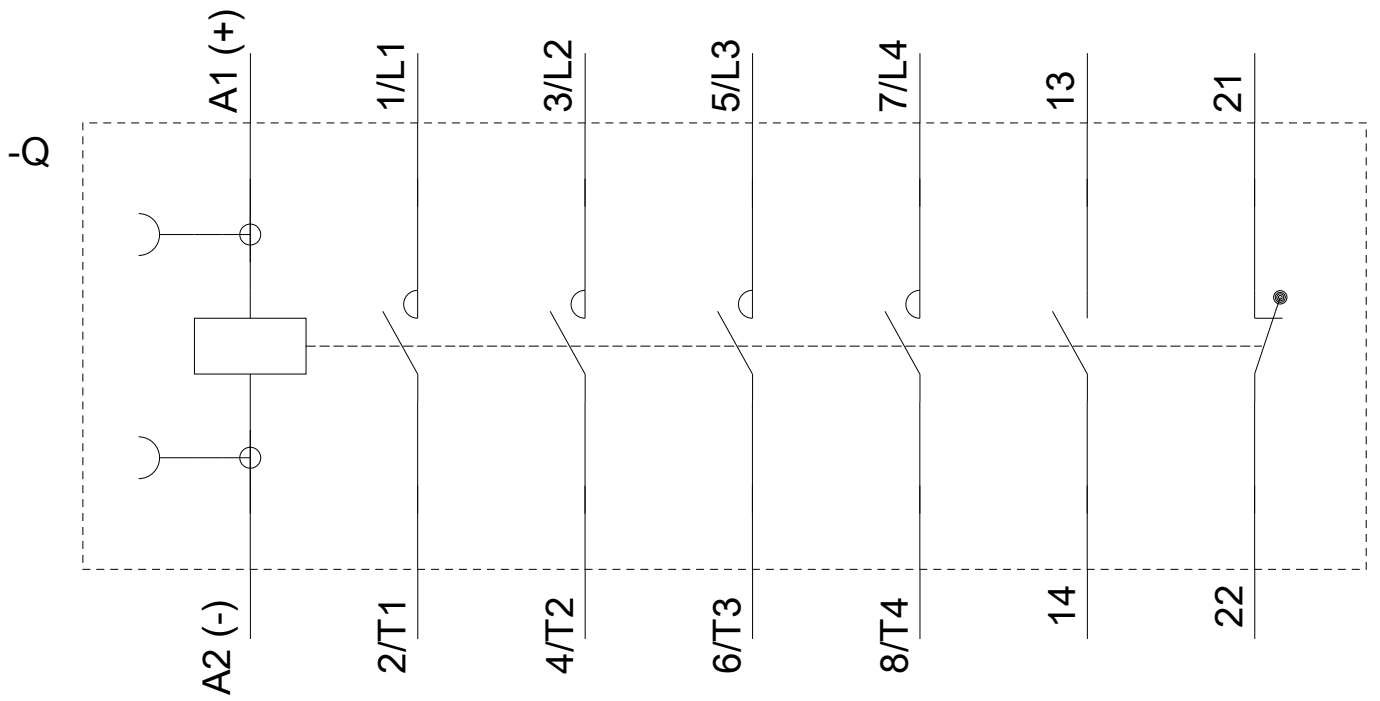
| | | | | | |
|--|---|---|--|------------------------------|--|
| Marine / Shipping | other | | | | |
|  PRS |  RINA |  RMRS |  TYPE-APPROVED PRODUCT DNV-GL DNVGL.COM/AF | Confirmation |  VDE |

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=3RT2326-1BB40>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2326-1BB40>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2326-1BB40>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2326-1BB40&lang=en







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