

Contacteur, AC-1, 110 A/400 V/40 °C, S2, 4-pole, 220 V AC, 50/60 Hz, 1 NO+1 NC, screw terminal



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| Product brand name | SIRIUS |
| Product designation | Contacteur |
| Product type designation | 3RT23 |
| General technical data | |
| Size of contactor | S2 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Surge voltage resistance | |
| • of main circuit rated value | 6 kV |
| • of auxiliary circuit rated value | 6 kV |
| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP00 |
| Shock resistance at rectangular impulse | |
| • at AC | 11.8g / 5 ms, 7.4g / 10 ms |
| Shock resistance with sine pulse | |
| • at AC | 18.5g / 5 ms, 11.6g / 10 ms |
| Mechanical service life (switching cycles) | |

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| <ul style="list-style-type: none"> • of contactor typical | 10 000 000 |
| <ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical | 100 000 000 |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

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| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> • maximum | 2 000 m |
| Relative humidity | |
| <ul style="list-style-type: none"> • during operation | 95 % |

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 <ul style="list-style-type: none"> — at 50 Hz rated value — at 60 Hz rated value | 690 V 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 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 110 A 110 A 95 A 38 A |
| Minimum cross-section in main circuit | |
| <ul style="list-style-type: none"> • at maximum AC-1 rated value | 35 mm ² |
| 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 | 700 1/h |

Control circuit/ Control

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| Type of voltage | AC |
| 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 | 220 V 220 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 |

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| <ul style="list-style-type: none"> • at 60 Hz | 0.85 ... 1.1 |
| Apparent pick-up power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 210 V·A |
| <ul style="list-style-type: none"> • at 60 Hz | 188 V·A |
| Inductive power factor with closing power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.69 |
| <ul style="list-style-type: none"> • at 60 Hz | 0.65 |
| Apparent holding power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 17.2 V·A |
| <ul style="list-style-type: none"> • at 60 Hz | 16.5 V·A |
| Inductive power factor with the holding power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.36 |
| <ul style="list-style-type: none"> • at 60 Hz | 0.39 |
| Closing delay | |
| <ul style="list-style-type: none"> • at AC | 10 ... 80 ms |
| Opening delay | |
| <ul style="list-style-type: none"> • at AC | 10 ... 18 ms |
| Arcing time | 10 ... 20 ms |
| Control version of the switch operating mechanism | Standard A1 - A2 |

| Auxiliary circuit | |
|---|--------|
| Number of NC contacts for auxiliary contacts | 1 |
| <ul style="list-style-type: none"> • attachable | 2 |
| <ul style="list-style-type: none"> • instantaneous contact | 1 |
| Number of NO contacts for auxiliary contacts | 1 |
| <ul style="list-style-type: none"> • attachable | 2 |
| <ul style="list-style-type: none"> • instantaneous contact | 1 |
| Operating current at AC-12 | |
| <ul style="list-style-type: none"> • 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 |
| <ul style="list-style-type: none"> • at 220 V rated value | 1 A |
| <ul style="list-style-type: none"> • at 600 V rated value | 0.15 A |

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| Operating current at DC-13 | |
| <ul style="list-style-type: none"> • at 24 V rated value • at 48 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>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p> |
| Design of the miniature circuit breaker | |
| <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required | gG: 10 A (230 V, 400 A) |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

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| UL/CSA ratings | |
| Contact rating of auxiliary contacts according to UL | A600 / P600 |

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| Short-circuit protection | |
| Product function Short circuit protection | No |
| 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: 160 A (690 V, 100 kA)</p> <p>gR: 80 A (690 V, 100 kA)</p> <p>gG: 10 A (690 V, 1 kA)</p> |

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| 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 | 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 | 114 mm |
| Width | 75 mm |
| Depth | 130 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 | <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> |

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| • for live parts | |
| — forwards | 10 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 6 mm |

Connections/ Terminals

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|---|---|
| Type of electrical connection | |
| • for main current circuit | screw-type terminals |
| • for auxiliary and control current circuit | screw-type terminals |
| Type of connectable conductor cross-sections | |
| • for main contacts | |
| — single or multi-stranded | 2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) |
| — finely stranded with core end processing | 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) |
| • at AWG conductors for main contacts | 2x (18 ... 2), 1x (18 ... 1) |
| Connectable conductor cross-section for main contacts | |
| • single or multi-stranded | 1 ... 50 mm ² |
| • finely stranded with core end processing | 1 ... 35 mm ² |
| Connectable conductor cross-section for auxiliary contacts | |
| • single or multi-stranded | 0.5 ... 2.5 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| • finely stranded without core end processing | 0.5 ... 2.5 mm ² |
| Type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — solid | 2x (0.5 ... 1,5mm ²), 2x (0,75 ... 2,5 mm ²) |
| — single or multi-stranded | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • at AWG conductors for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14) |
| AWG number as coded connectable conductor cross section | |
| • for main contacts | 18 ... 1 |
| • for auxiliary contacts | 20 ... 14 |

Safety related data

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| Product function | |
| • Mirror contact acc. to IEC 60947-4-1 | Yes |
| • positively driven operation acc. to IEC 60947-5-1 | No |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| Protection against electrical shock | finger-safe when touched vertically from front acc. to IEC 60529 |

Communication/ Protocol

Product function Bus communication

No

Certificates/ approvals

| | | |
|--------------------------|-----|---------------------------------------|
| General Product Approval | EMC | Functional Safety/Safety of Machinery |
|--------------------------|-----|---------------------------------------|



[Type Examination Certificate](#)

Declaration of Conformity

Test Certificates

Marine / Shipping



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping

other



LRS



PRS



RINA



RMRS



DNVGL.COM/AF

[Confirmation](#)

Further information

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2337-1AN20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2337-1AN20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AN20>

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

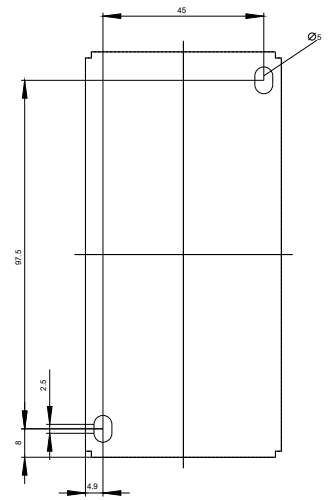
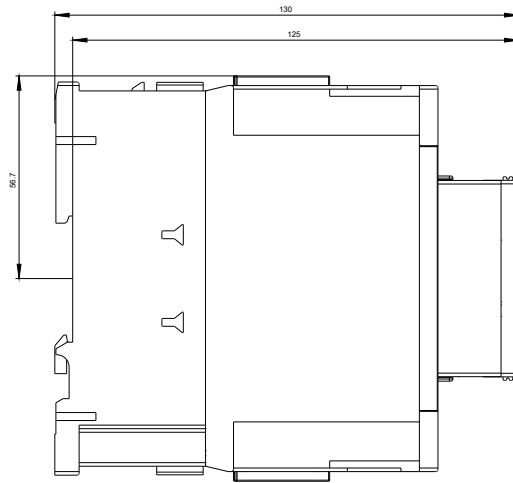
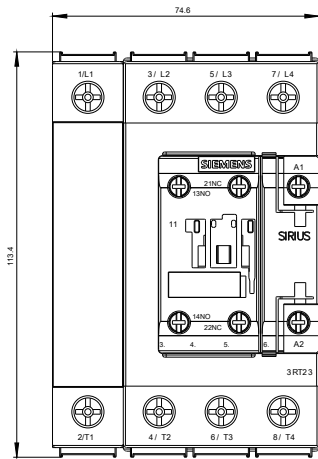
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2337-1AN20&lang=en

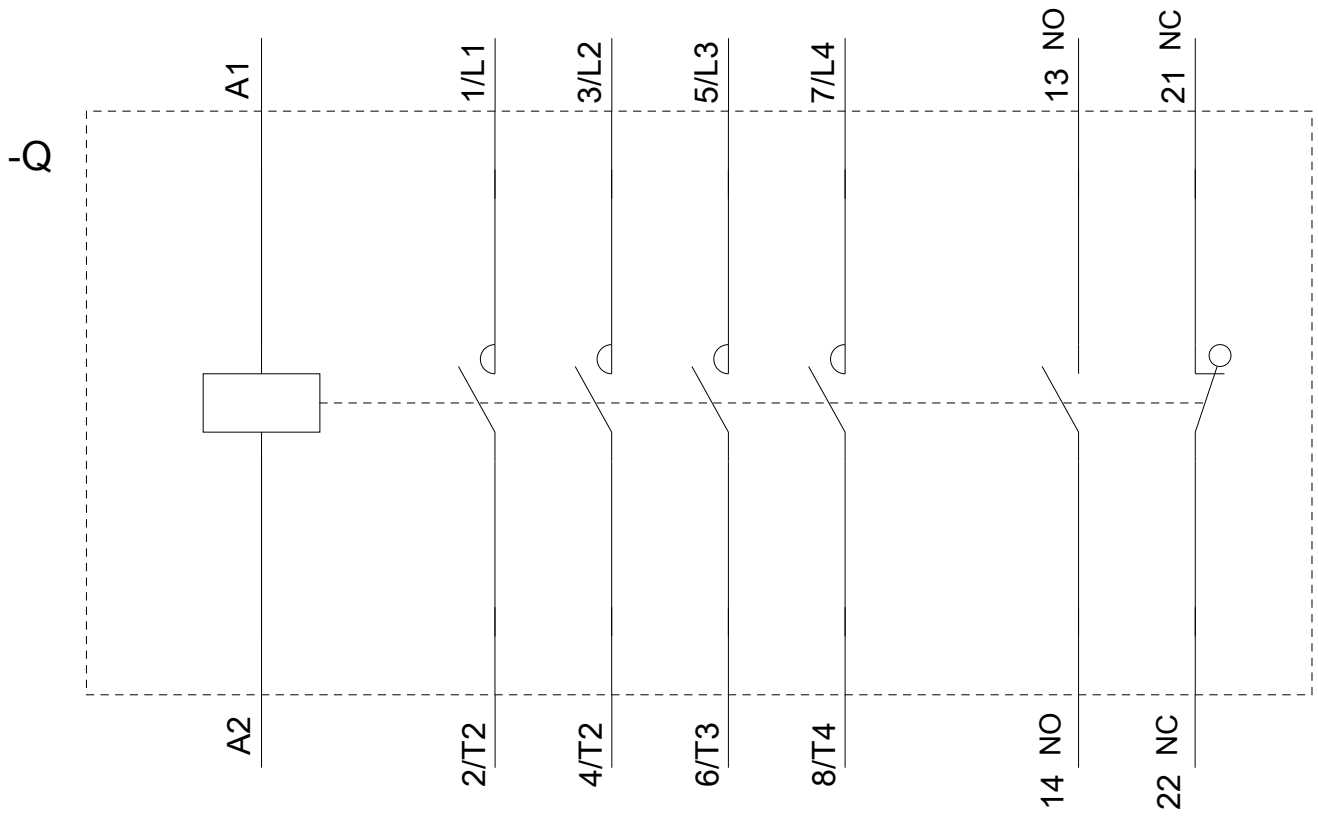
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AN20/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2337-1AN20&objecttype=14&gridview=view1>





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