



contactor AC-1, 110 A, 400 V / 40 °C, 4-pole, 24 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2

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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 |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state | 38.8 W |
| • at AC in hot operating state per pole | 9.7 W |
| • without load current share typical | 5.9 W |
| type of calculation of power loss depending on pole | quadratic |
| insulation voltage | |
| • of main circuit with degree of pollution 3 rated value | 690 V |
| • of the auxiliary and control circuit with degree of pollution 3 rated value | 690 V |
| surge voltage resistance | |
| • of main circuit rated value | 6 kV |
| • of auxiliary circuit rated value | 6 kV |
| 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 (operating cycles) | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2014 |
| Weight | 1.2 kg |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |
| Environmental footprint | |
| Environmental Product Declaration (EPD) | Yes |
| global warming potential [CO ₂ eq] total | 302 kg |

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| global warming potential [CO2 eq] during manufacturing | 4.83 kg |
| global warming potential [CO2 eq] during operation | 297 kg |
| global warming potential [CO2 eq] after end of life | -0.64 kg |
| Main circuit | |
| number of poles for main current circuit | 4 |
| number of NO contacts for main contacts | 4 |
| type of voltage for main current circuit | AC |
| operational current | |
| <ul style="list-style-type: none"> ● at AC-1 at 400 V at ambient temperature 40 °C rated value | 110 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 — up to 690 V at ambient temperature 60 °C rated value | 110 A 95 A |
| <ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 38 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 35 mm ² |
| operational 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 — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value ● with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value ● with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value ● at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 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 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 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 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value | 55 A 23 A 4.5 A 1 A 0.4 A 55 A 55 A 45 A 5 A 1 A 55 A 55 A 55 A 45 A 2.9 A 20 A 5 A 2.5 A 1 A 0.1 A 45 A 45 A 25 A 5 A 0.27 A 45 A 45 A 45 A 25 A 0.6 A |
| no-load switching frequency | |
| <ul style="list-style-type: none"> ● at AC | 5 000 1/h |
| operating frequency at AC-1 maximum | 700 1/h |
| Control circuit/ Control | |
| type of voltage | AC |
| type of voltage of the control supply voltage | AC |

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| control supply voltage at AC ● at 50 Hz rated value | 24 V |
| operating range factor control supply voltage rated value of magnet coil at AC ● at 50 Hz | 0.8 ... 1.1 |
| apparent pick-up power of magnet coil at AC ● at 50 Hz | 190 VA |
| inductive power factor with closing power of the coil ● at 50 Hz | 0.72 |
| apparent holding power of magnet coil at AC ● at 50 Hz | 16 VA |
| inductive power factor with the holding power of the coil ● at 50 Hz | 0.37 |
| closing delay ● at AC | 10 ... 80 ms |
| opening delay ● 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 ● attachable ● instantaneous contact | 1 2 1 |
| number of NO contacts for auxiliary contacts ● attachable ● instantaneous contact | 1 2 1 |
| operational current at AC-12 maximum | 10 A |
| operational current at AC-15 ● at 230 V rated value ● at 400 V rated value ● at 500 V rated value ● at 690 V rated value | 10 A 3 A 2 A 1 A |
| operational current at DC-12 ● 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 |
| operational current at DC-13 ● 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 | 10 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 | |
| contact rating of auxiliary contacts according to UL | A600 / P600 |
| Short-circuit protection | |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA |
| design of the fuse link ● for short-circuit protection of the main circuit — with type of coordination 1 required — with type of coordination 2 required ● for short-circuit protection of the auxiliary switch required | gG: 160 A (690 V, 100 kA) gR: 80 A (690 V, 100 kA) gG: 10 A (690 V, 1 kA) |
| 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 |

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| fastening method side-by-side mounting | Yes |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| 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 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm ● for grounded parts <ul style="list-style-type: none"> — forwards 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm ● for live parts <ul style="list-style-type: none"> — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm | |
| Connections/ Terminals | |
| type of electrical connection | |
| <ul style="list-style-type: none"> ● for main current circuit screw-type terminals ● for auxiliary and control circuit screw-type terminals ● at contactor for auxiliary contacts Screw-type terminals ● of magnet coil 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 or stranded 2x (1 ... 35 mm²), 1x (1 ... 50 mm²) — finely stranded with core end processing 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) ● for AWG cables for main contacts 2x (18 ... 2), 1x (18 ... 1) | |
| connectable conductor cross-section for main contacts | |
| <ul style="list-style-type: none"> ● solid or stranded 1 ... 50 mm² ● finely stranded with core end processing 1 ... 35 mm² | |
| connectable conductor cross-section for auxiliary contacts | |
| <ul style="list-style-type: none"> ● solid or stranded 0.5 ... 2.5 mm² ● finely stranded with core end processing 0.5 ... 2.5 mm² ● finely stranded without core end processing 0.5 ... 2.5 mm² | |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> ● for auxiliary contacts <ul style="list-style-type: none"> — solid 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) — solid or 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) ● for AWG cables for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14) | |
| AWG number as coded connectable conductor cross section for main contacts | 18 ... 1 |
| AWG number as coded connectable conductor cross section for auxiliary contacts | 20 ... 14 |
| Safety related data | |
| product function | |
| <ul style="list-style-type: none"> ● mirror contact according to IEC 60947-4-1 Yes ● positively driven operation according to IEC 60947-5-1 No | |
| Electrical Safety | |
| protection class IP on the front according to IEC 60529 | IP20 |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front |
| Communication/ Protocol | |
| product function bus communication | No |
| Approvals Certificates | |
| General Product Approval | |



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| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|



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|----------------------|-------|---------|
| Maritime application | other | Railway |
|----------------------|-------|---------|



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| | |
|-----------------|-------------|
| Dangerous goods | Environment |
|-----------------|-------------|

[Transport Information](#)



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| Further information |
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Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RT2337-1AB00>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2337-1AB00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AB00>

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

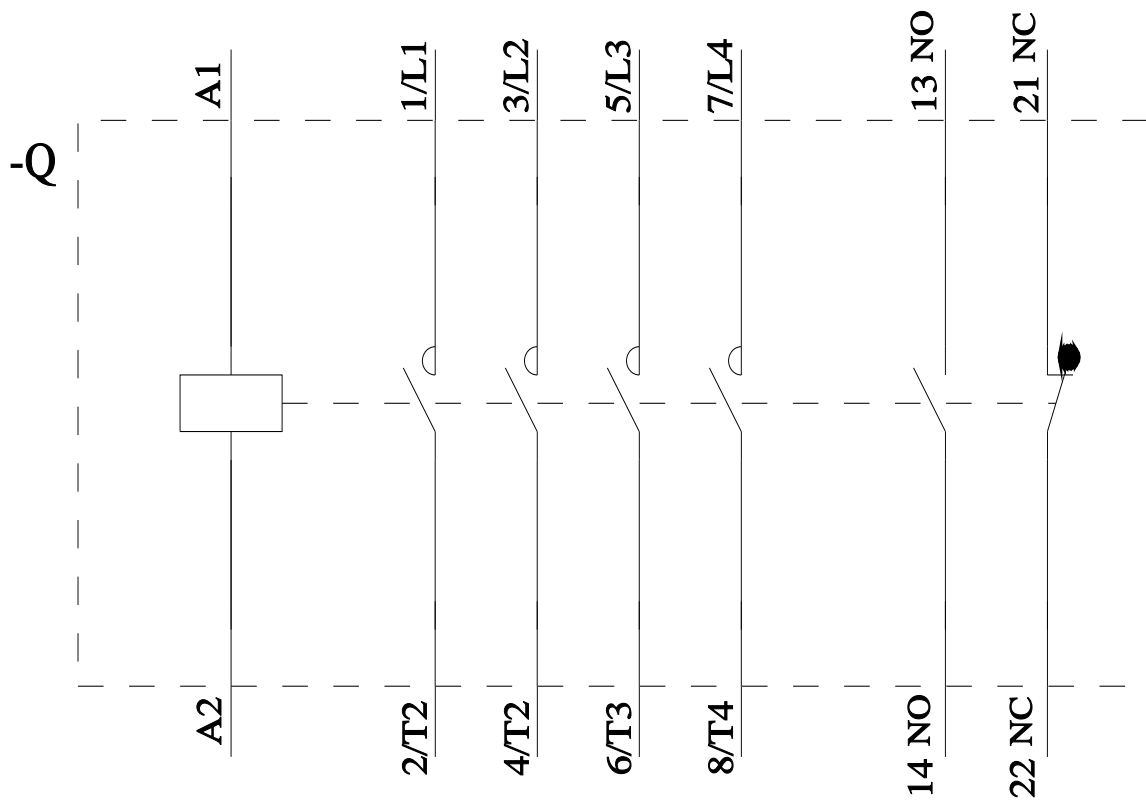
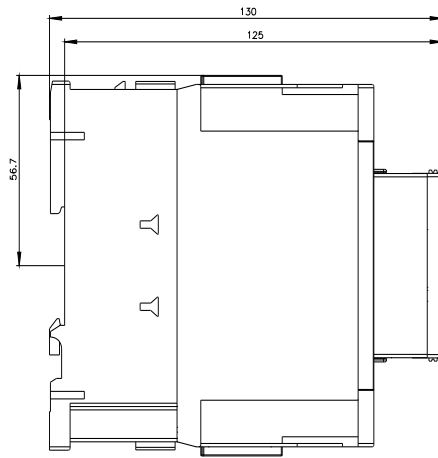
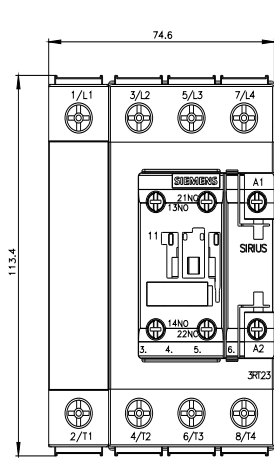
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Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AB00/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2337-1AB00&objecttype=14&gridview=view1>



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