



contactor AC-1, 18 A, 400 V / 40 °C, 4-pole, 24 V DC, screw terminal, size: S00

| | |
|---|----------------------------|
| product brand name | SIRIUS |
| product designation | Contactor |
| product type designation | 3RT23 |
| General technical data | |
| size of contactor | S00 |
| 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 | 4.4 W |
| • at AC in hot operating state per pole | 1.1 W |
| • without load current share typical | 4 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 DC | 6,7g / 5 ms, 4,2g / 10 ms |
| shock resistance with sine pulse | |
| • at DC | 10,5g / 5 ms, 6,6g / 10 ms |
| mechanical service life (operating cycles) | |
| • of contactor typical | 30 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| 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 | 184 kg |
| Global Warming Potential [CO ₂ eq] during manufacturing | 1.55 kg |

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| Global Warming Potential [CO ₂ eq] during operation | 183 kg |
| Global Warming Potential [CO ₂ eq] after end of life | -0.249 kg |
| Main circuit | |
| number of poles for main current circuit | 4 |
| number of NO contacts for main contacts | 4 |
| operational current | |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value | 18 A |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 18 A |
| — up to 690 V at ambient temperature 60 °C rated value | 16 A |
| • at AC-3 | |
| — at 400 V rated value | 9 A |
| • at AC-4 at 400 V rated value | 8.5 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 2.5 mm ² |
| operating power | |
| • at AC-3 at 400 V rated value | 4 kW |
| • at AC-4 at 400 V rated value | 4 kW |
| no-load switching frequency | |
| • at DC | 10 000 1/h |
| operating frequency at AC-1 maximum | 1 000 1/h |
| Control circuit/ Control | |
| type of voltage | DC |
| 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 | |
| • initial value | 0.8 |
| • full-scale value | 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 |
| control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | |
| • attachable | 2 |
| number of NO contacts for auxiliary contacts | |
| • attachable | 2 |
| Short-circuit protection | |
| product function short circuit protection | No |
| design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 35 A (690 V, 100 kA) |
| — with type of assignment 2 required | gG: 20 A (690 V, 100 kA) |
| • for short-circuit protection of the auxiliary switch required | 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 |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| height | 58 mm |
| width | 45 mm |
| depth | 73 mm |
| required spacing | |
| • with side-by-side mounting | |

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| — forwards | 10 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 0 mm |
| • for grounded parts | |
| — forwards | 10 mm |
| — upwards | 10 mm |
| — at the side | 6 mm |
| — downwards | 10 mm |
| • 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 circuit | screw-type terminals |
| • at contactor for auxiliary contacts | Screw-type terminals |
| • of magnet coil | Screw-type terminals |
| type of connectable conductor cross-sections for main contacts | |
| • solid | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² |
| • solid or 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 | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| connectable conductor cross-section for main contacts | |
| • solid | 0.5 ... 4 mm ² |
| • solid or stranded | 0.5 ... 4 mm ² |
| • stranded | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| connectable conductor cross-section for auxiliary contacts | |
| • solid or stranded | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — solid | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| — solid or 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 | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • for AWG cables for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| AWG number as coded connectable conductor cross section | |
| • for main contacts | 20 ... 12 |
| • for auxiliary contacts | 20 ... 12 |

Safety related data

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| product function | |
| • mirror contact according to IEC 60947-4-1 | Yes; with 3RH29 |
| IEC 61508 | |
| T1 value | |
| • for proof test interval or service life according to IEC 61508 | 20 a |
| 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 | |



[Confirmation](#)



| | | | | |
|--------------------------|-----|-------------------|-------------------|-------------------|
| General Product Approval | EMV | Functional Safety | Test Certificates | Marine / Shipping |
|--------------------------|-----|-------------------|-------------------|-------------------|



[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping



| | | |
|-------|----------------|-------------|
| other | Dangerous Good | Environment |
|-------|----------------|-------------|

[Miscellaneous](#)

[Confirmation](#)

[Transport Information](#)



[Environmental Confirmations](#)

Further information

Information on the packaging

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

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=3RT2316-1BB40>

Cax online generator

<http://support.automation.siemens.com/WW/CAOrder/default.aspx?lang=en&mlfb=3RT2316-1BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BB40>

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

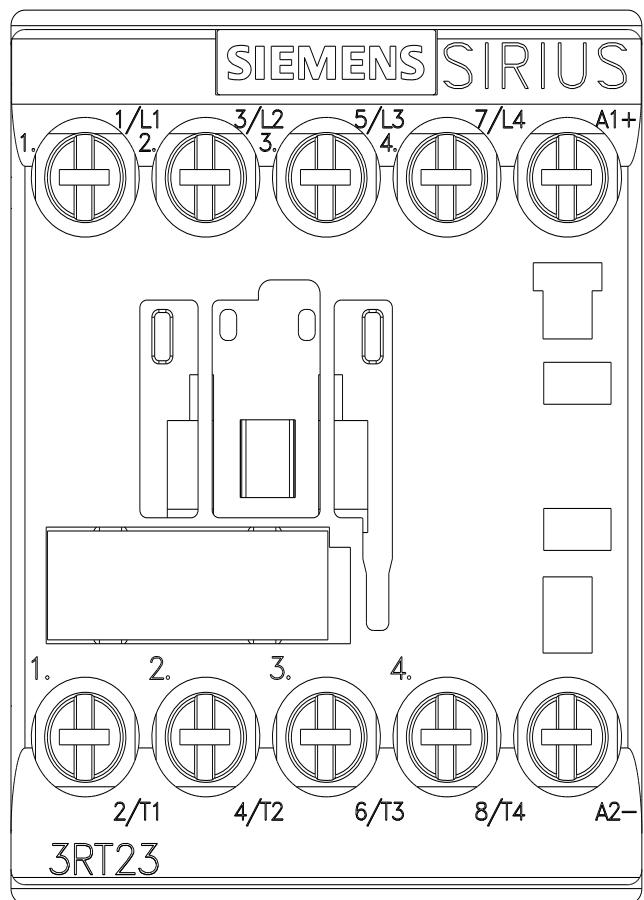
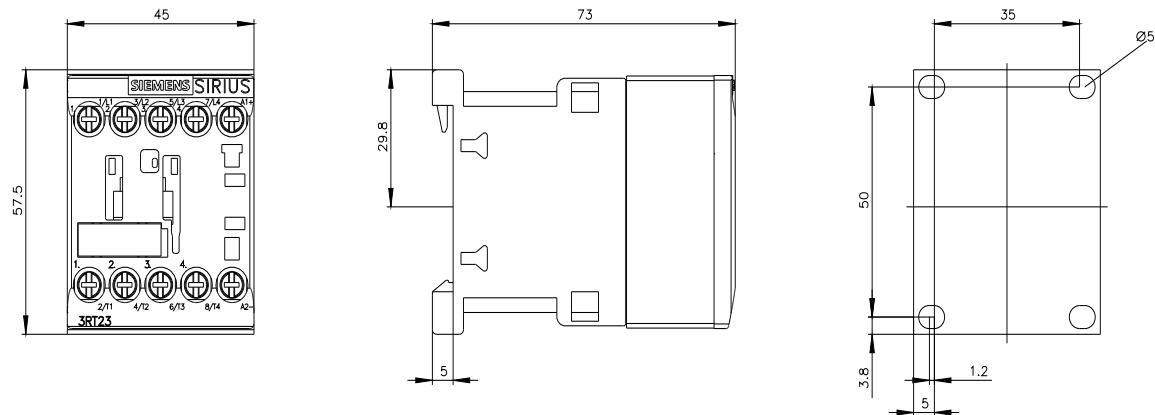
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1BB40&lang=en

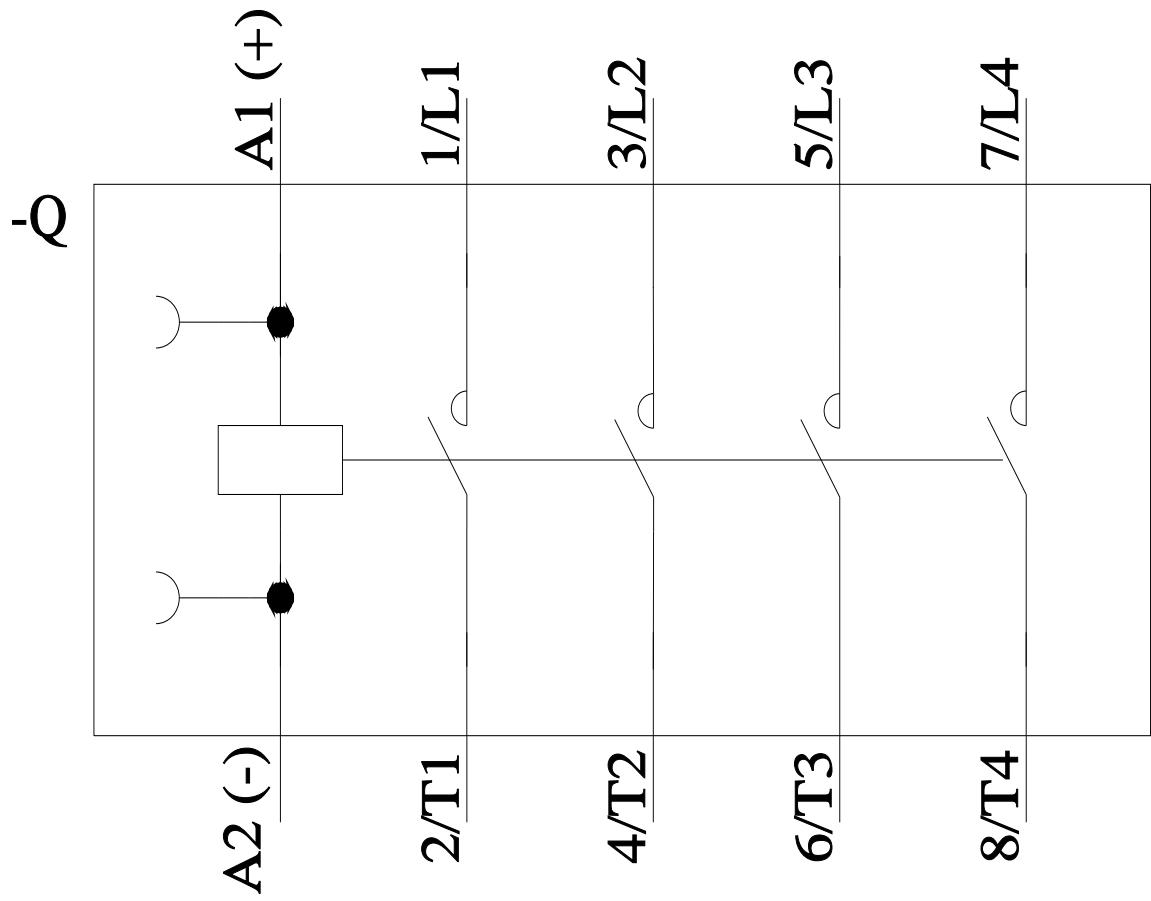
Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BB40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-1BB40&objecttype=14&gridview=view1>





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