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## Data sheet 3RT2317-1BB40




contactor AC-1, 22 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 | 6.4 W |
| ● at AC in hot operating state per pole | 1.6 W |
| ● without load current share typical | 4 W |
| **type of calculation of power loss current-dependent** | 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 | 7.3 g / 5 ms, 4.7 g / 10 ms |
| **shock resistance with sine pulse** | |
| ● at DC | 11,4 g / 5 ms, 7,3g / 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 (day/month/year)** | 10/01/2009 |
| **Net Weight** | 278.8 g |
| **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 % |
| **Main circuit** | |


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| | |
|---|---|
| **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** | |
| ● at AC-1 at 400 V at ambient temperature 40 °C rated value | 22 A |
| ● at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 22 A |
| — up to 690 V at ambient temperature 60 °C rated value | 20 A |
| ● at AC-3 | |
| — at 400 V rated value | 12 A |
| ● at AC-4 at 400 V rated value | 8.5 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 4 mm² |
| **operational current** | |
| **● at 1 current path at DC-1** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 20 A |
| — at 110 V rated value | 2.1 A |
| — at 220 V rated value | 0.8 A |
| — at 440 V rated value | 0.6 A |
| **● with 2 current paths in series at DC-1** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 20 A |
| — at 110 V rated value | 12 A |
| — at 220 V rated value | 1.6 A |
| — at 440 V rated value | 0.8 A |
| **● with 3 current paths in series at DC-1** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 20 A |
| — at 110 V rated value | 20 A |
| — at 220 V rated value | 20 A |
| — at 440 V rated value | 1.3 A |
| **● at 1 current path at DC-3 at DC-5** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 0.5 A |
| — at 110 V rated value | 0.15 A |
| **● with 2 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 5 A |
| — at 110 V rated value | 0.35 A |
| **● with 3 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 20 A |
| — at 60 V rated value | 20 A |
| — at 110 V rated value | 20 A |
| — at 220 V rated value | 1.5 A |
| — at 440 V rated value | 0.2 A |
| **operating power** | |
| ● at AC-3 at 400 V rated value | 5.5 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 |


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| | |
|---|---|
| **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** | |
| **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 coordination 2 required | gG: 20 A (690 V, 100 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 side-by-side mounting | Yes |
| **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 | |
| — 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** | |
| **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 terminal |
| **type of connectable conductor cross-sections** | |
| ● for main contacts | |
| — solid | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm² |
| — solid or stranded | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm² |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| ● for AWG cables for main contacts | 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| **connectable conductor cross-section for main contacts** | |


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| | |
|---|---|
| • solid | 0.5 ... 4 mm² |
| • solid or stranded | 0.5 ... 4 mm² |
| • stranded | 0.5 ... 4 mm² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm² |
| **connectable conductor cross-section for auxiliary contacts** | |
| • solid or stranded | 0.5 ... 4 mm² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm² |
| **type of connectable conductor cross-sections** | |
| • for auxiliary contacts | |
| — 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), 2x 4 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), 2x 12 |
| **AWG number as coded connectable conductor cross section for main contacts** | 20 ... 12 |
| **AWG number as coded connectable conductor cross section for auxiliary contacts** | 20 ... 12 |
| **Safety related data** | |
| **product function** | |
| • **mirror contact according to IEC 60947-4-1** | Yes; with 3RH29 |
| • **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** | |
| Environmental Product Declaration | |
| • global warming potential [CO2 eq] / during manufacturing | 1.55 kg |
| • global warming potential [CO2 eq] / during operation | 183 kg |
| • global warming potential [CO2 eq] / after end of life | -0.249 kg |
| • global warming potential [CO2 eq] / total | 184 kg |

**Environment** | **General Product Approval**

Environmental Confirmations

**General Product Approval** | **EMV** | **Test Certificates** | **Maritime application**

Special Test Certificate | Type Test Certificates/Test Report

**Maritime application** | **other**

Confirmation

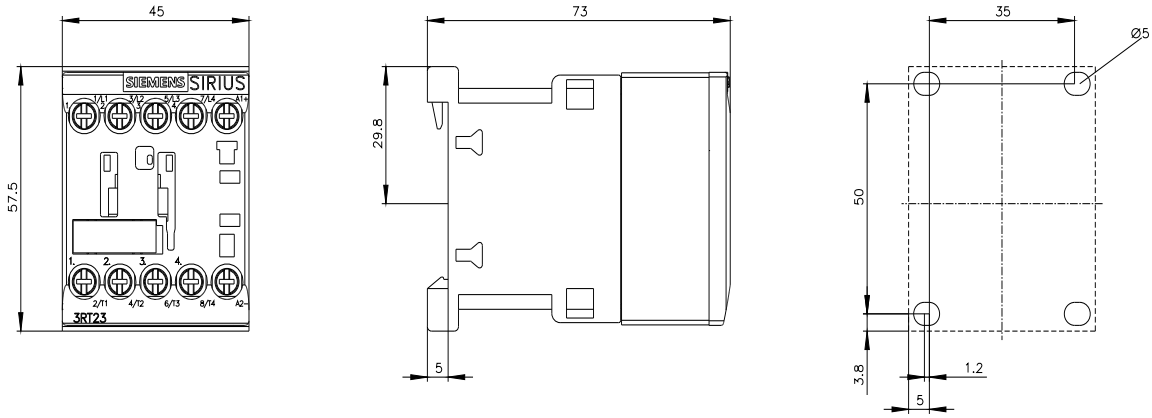
**other** | **Railway** | **Dangerous goods**

Miscellaneous | Special Test Certificate | Transport Information


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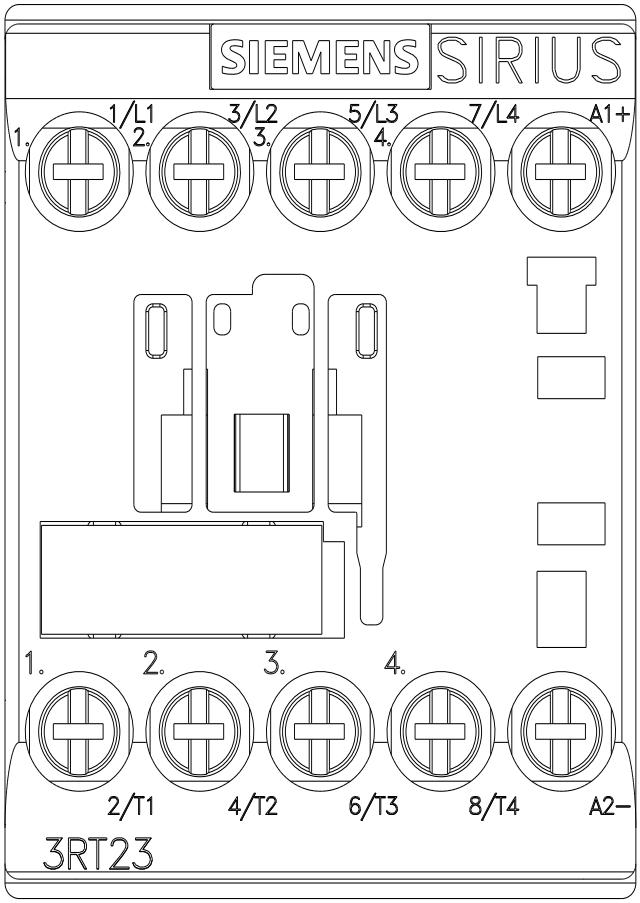
## Further information

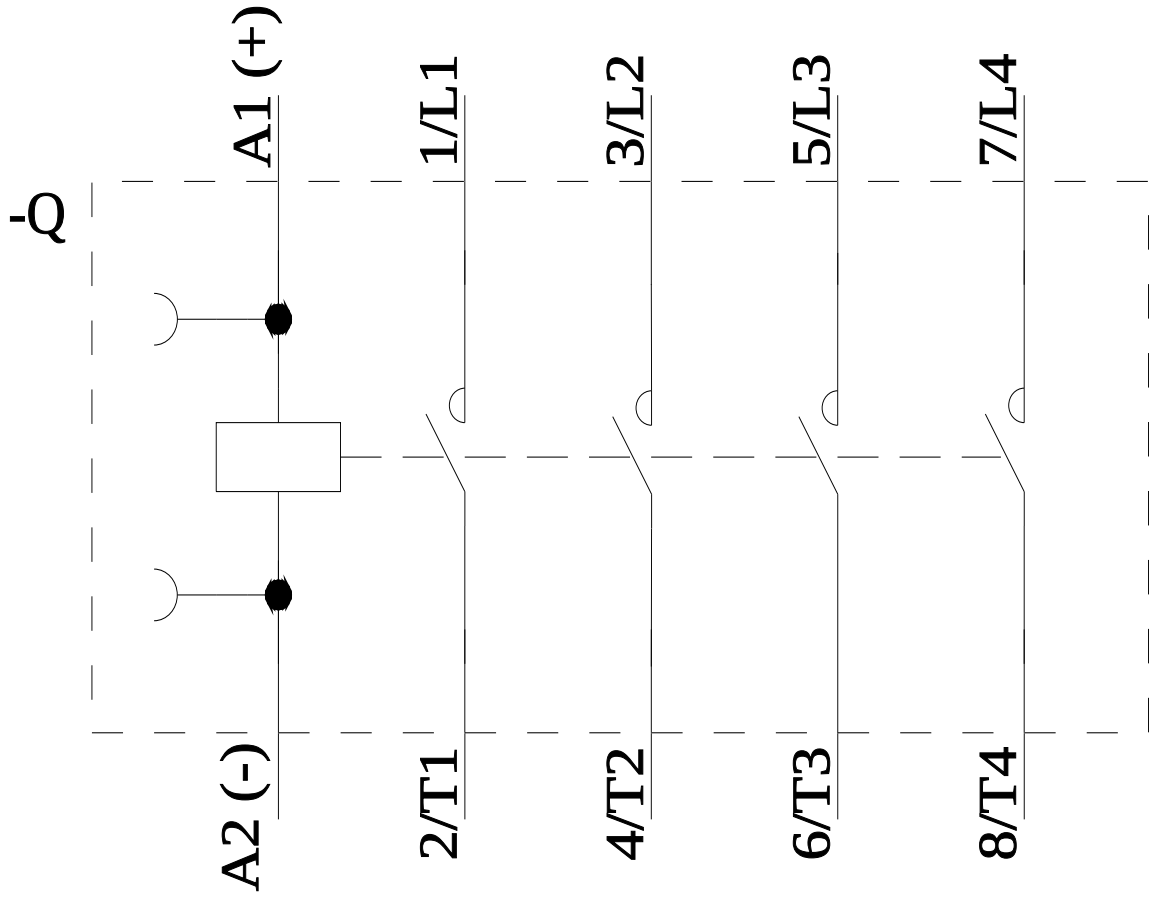
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