SIEMENS

## Data sheet 3RT2336-1AM20

contactor AC-1, 60 A, 400 V / 40 °C, 4-pole, 208 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Contactor |
| **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 | 12.8 W |
| ● at AC in hot operating state per pole | 3.2 W |
| ● without load current share typical | 6.4 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 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** | 1.146 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 [CO2 eq] total | 302 kg |

| | |
|---|---|
| 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** | |
| ● at AC-1 at 400 V at ambient temperature 40 °C rated value | 60 A |
| ● at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 60 A |
| — up to 690 V at ambient temperature 60 °C rated value | 55 A |
| ● at AC-3 | |
| — at 400 V rated value | 38 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 16 mm² |
| **operational current** | |
| **● at 1 current path at DC-1** | |
| — at 24 V rated value | 55 A |
| — at 60 V rated value | 23 A |
| — at 110 V rated value | 4.5 A |
| — at 220 V rated value | 1 A |
| — at 440 V rated value | 0.4 A |
| **● with 2 current paths in series at DC-1** | |
| — at 24 V rated value | 55 A |
| — at 60 V rated value | 55 A |
| — at 110 V rated value | 45 A |
| — at 220 V rated value | 5 A |
| — at 440 V rated value | 1 A |
| **● with 3 current paths in series at DC-1** | |
| — at 24 V rated value | 55 A |
| — at 60 V rated value | 55 A |
| — at 110 V rated value | 55 A |
| — at 220 V rated value | 45 A |
| — at 440 V rated value | 2.9 A |
| **● at 1 current path 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 | 2.5 A |
| — at 220 V rated value | 1 A |
| — at 440 V rated value | 0.1 A |
| **● with 2 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 45 A |
| — at 60 V rated value | 45 A |
| — at 110 V rated value | 25 A |
| — at 220 V rated value | 5 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 | 45 A |
| — at 60 V rated value | 45 A |
| — at 110 V rated value | 45 A |
| — at 220 V rated value | 25 A |
| — at 440 V rated value | 0.6 A |
| **no-load switching frequency** | |
| ● 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 |

| | |
|---|---|
| **control supply voltage at AC** | |
| ● at 50 Hz rated value | 208 V |
| ● at 60 Hz rated value | 208 V |
| **operating range factor control supply voltage rated value of magnet coil at AC** | |
| ● at 50 Hz | 0.8 ... 1.1 |
| ● at 60 Hz | 0.85 ... 1.1 |
| **apparent pick-up power of magnet coil at AC** | |
| ● at 50 Hz | 210 VA |
| ● at 60 Hz | 188 VA |
| **inductive power factor with closing power of the coil** | |
| ● at 50 Hz | 0.69 |
| ● at 60 Hz | 0.65 |
| **apparent holding power of magnet coil at AC** | |
| ● at 50 Hz | 17.2 VA |
| ● at 60 Hz | 16.5 VA |
| **inductive power factor with the holding power of the coil** | |
| ● at 50 Hz | 0.36 |
| ● at 60 Hz | 0.39 |
| **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** | 1 |
| ● attachable | 2 |
| ● instantaneous contact | 1 |
| **number of NO contacts for auxiliary contacts** | 1 |
| ● attachable | 2 |
| ● instantaneous contact | 1 |
| operational current at AC-12 maximum | 10 A |
| **operational current at AC-15** | |
| ● at 230 V rated value | 10 A |
| ● at 400 V rated value | 3 A |
| ● at 500 V rated value | 2 A |
| ● at 690 V rated value | 1 A |
| **operational current at DC-12** | |
| ● at 24 V rated value | 10 A |
| ● at 48 V rated value | 6 A |
| ● at 60 V rated value | 6 A |
| ● at 110 V rated value | 3 A |
| ● at 125 V rated value | 2 A |
| ● at 220 V rated value | 1 A |
| ● at 600 V rated value | 0.15 A |
| **operational current at DC-13** | |
| ● at 24 V rated value | 10 A |
| ● at 48 V rated value | 2 A |
| ● at 110 V rated value | 1 A |
| ● at 125 V rated value | 0.9 A |
| ● at 220 V rated value | 0.3 A |
| ● at 600 V rated value | 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 | gG: 160 A (690 V, 100 kA) |
| — with type of coordination 2 required | gG: 63 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 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** | |
| ● 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-type terminals |
| **type of connectable conductor cross-sections** | |
| ● for main contacts | |
| — 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** | |
| ● solid or stranded | 1 ... 50 mm² |
| ● finely stranded with core end processing | 1 ... 35 mm² |
| **connectable conductor cross-section for auxiliary contacts** | |
| ● 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** | |
| ● 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) |
| — 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** | |
| ● 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

KC

### EMV | Test Certificates | Maritime application

Type Test Certificates/Test Report

Special Test Certificate

### Maritime application | other

Confirmation

### Railway | Dangerous goods | Environment

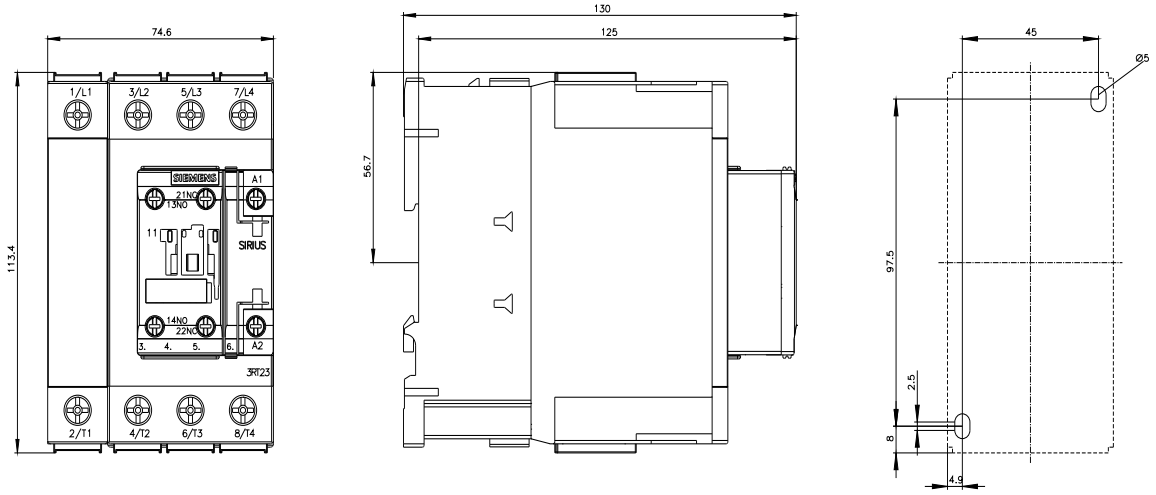
Special Test Certificate

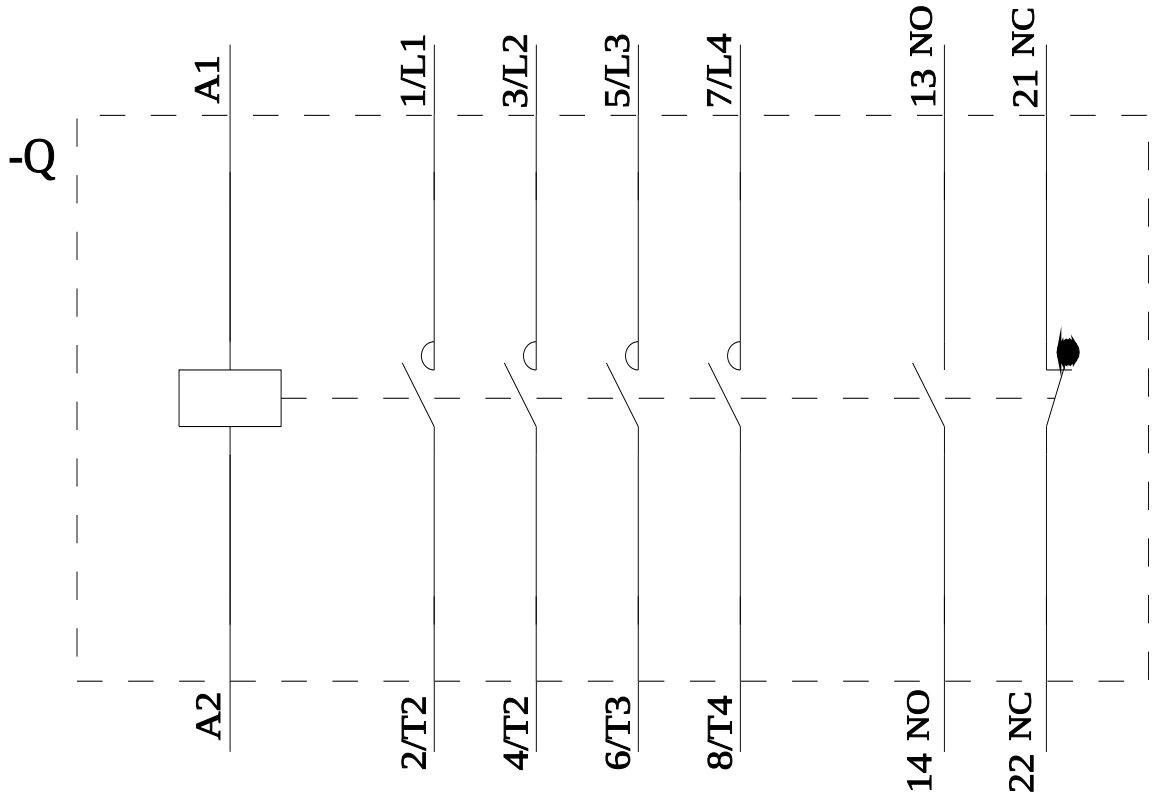
Transport Information

Environmental Confirmations

## Further information

**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=3RT2336-1AM20
**Cax online generator**
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2336-1AM20
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RT2336-1AM20
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2336-1AM20&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RT2336-1AM20/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2336-1AM20&objecttype=14&gridview=view1




**last modified:** 11/11/2025