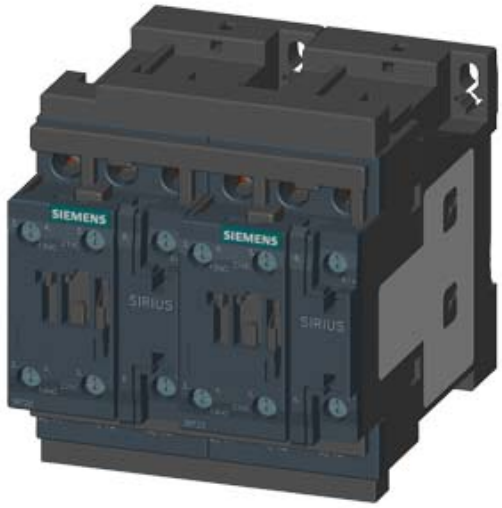
SIEMENS

## Data sheet 3RA2327-8XB30-1BB4




REV. COMB., AC3, 15KW/400V DC24V 3-POLE, SZ S0
SCREW TERMINAL ELECTR. AND MECH.
INTERLOCK 2NO INTEGR.

| | | |
|---|---|---|
| product brand name | | SIRIUS |
| Product designation | | star-delta (wye-delta) contactor assembly 3RA24 |
| **Manufacturer article number** | | |
| • 1 of the supplied contactor | | 3RT2027-1BB40 |
| • 2 of the supplied contactor | | 3RT2027-1BB40 |
| • of the supplied RH assembly kit | | 3RA2923-2AA1 |
| **General technical data:** | | |
| **Insulation voltage** | | |
| • with degree of pollution 3 Rated value | V | 690 |
| **Degree of pollution** | | 3 |
| **Shock resistance** | | 9.8g / 5 ms and 5.9g / 10 ms |
| **Surge voltage resistance Rated value** | kV | 6 |
| **Mechanical service life (switching cycles)** | | |
| • of the contactor typical | | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | | 10 000 000 |
| **Protection class IP** | | |
| • on the front | | IP20 |
| **Equipment marking** | | |
| • acc. to DIN EN 81346-2 | | Q |
| **Main circuit:** | | |
| **Number of poles for main current circuit** | | 3 |
| **Number of NC contacts for main contacts** | | 0 |
| **Number of NO contacts for main contacts** | | 3 |
| **Operating voltage** | | |

| | | |
|---|---|---|
| • at AC-3 Rated value maximum | V | 690 |
| **Operating current** | | |
| • at AC-1 | | |
| — at 400 V at ambient temperature 40 °C Rated value | A | 50 |
| — at 400 V at ambient temperature 60 °C Rated value | A | 45 |
| • at AC-2 at 400 V Rated value | A | 32 |
| • at AC-3 | | |
| — at 400 V Rated value | A | 32 |
| • at AC-4 at 400 V Rated value | A | 22 |
| **Operating current with 1 current path** | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 35 |
| — at 110 V Rated value | A | 4.5 |
| • at DC-3 at DC-5 | | |
| — at 24 V Rated value | A | 20 |
| — at 110 V Rated value | A | 2.5 |
| **Operating current with 2 current paths in series** | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 35 |
| — at 110 V Rated value | A | 35 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | A | 15 |
| — at 24 V Rated value | A | 35 |
| **Operating current with 3 current paths in series** | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 35 |
| — at 110 V Rated value | A | 35 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | A | 35 |
| — at 24 V Rated value | A | 35 |
| **Operating power** | | |
| • at AC-2 at 400 V Rated value | kW | 15 |
| • at AC-4 at 400 V Rated value | kW | 11 |
| **Operating power** | | |
| • at AC-3 | | |
| — at 400 V Rated value | kW | 15 |
| — at 500 V Rated value | kW | 18.5 |
| — at 690 V Rated value | kW | 15 |
| **Operating frequency** | | |
| • at AC-3 maximum | 1/h | 1 000 |

| | | |
|---|---|---|
| **No-load switching frequency** | 1/h | 1 500 |
| **Control circuit/ Control:** | | |
| **Type of voltage of the control supply voltage** | | DC |
| **Control supply voltage 1** | | |
| • for DC Rated value | V | 24 |
| **Operating range factor control supply voltage rated value of the magnet coil for DC** | | 0.8 ... 1.1 |
| **Closing power of the magnet coil for DC** | W | 5.9 |
| **Holding power of the magnet coil for DC** | W | 5.9 |
| **Auxiliary circuit:** | | |
| **Number of NC contacts** | | |
| • for auxiliary contacts | | |
| — per direction of rotation | | 0 |
| — instantaneous contact | | 0 |
| — lagging switching | | 0 |
| **Number of NO contacts** | | |
| • for auxiliary contacts | | |
| — per direction of rotation | | 0 |
| — instantaneous contact | | 0 |
| — leading contact | | 0 |
| **Product expansion Auxiliary switch** | | Yes |
| **Operating current of the auxiliary contacts at AC-12 maximum** | A | 10 |
| **Operating current of the auxiliary contacts at AC-15** | | |
| • at 230 V | A | 6 |
| • at 400 V | A | 3 |
| **Operating current of the auxiliary contacts at DC-13** | | |
| • at 24 V | A | 10 |
| • at 60 V | A | 2 |
| • at 110 V | A | 1 |
| • at 220 V | A | 0.3 |
| **Contact reliability of the auxiliary contacts** | | < 1 error per 100 million operating cycles |
| **UL/CSA ratings:** | | |
| **Full-load current (FLA) for three-phase AC motor** | | |
| • at 480 V Rated value | A | 27 |
| • at 600 V Rated value | A | 27 |
| **yielded mechanical performance [hp]** | | |
| • for single-phase AC motor at 110/120 V Rated value | metric hp | 2 |
| • for single-phase AC motor at 230 V Rated value | metric hp | 5 |

| | | |
|---|---|---|
| • for three-phase AC motor at 220/230 V Rated value | metric hp | 10 |
| • for three-phase AC motor at 460/480 V Rated value | metric hp | 20 |
| • for three-phase AC motor at 575/600 V Rated value | metric hp | 25 |
| **Contact rating of the auxiliary contacts acc. to UL** | | A600 / Q600 |

## Short-circuit:

| | | |
|---|---|---|
| **Design of the fuse link** | | |
| • for short-circuit protection of the main circuit | | |
| — with type of assignment 1 required | | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A |
| — with type of assignment 2 required | | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A |
| • for short-circuit protection of the auxiliary switch required | | fuse gL/gG: 10 A |

## 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 |
| **Height** | mm | 101 |
| **Width** | mm | 90 |
| **Depth** | mm | 107 |
| **Required spacing** | | |
| • with side-by-side mounting | | |
| — forwards | mm | 6 |
| — Backwards | mm | 0 |
| — upwards | mm | 6 |
| — downwards | mm | 6 |
| — at the side | mm | 6 |
| • for grounded parts | | |
| — forwards | mm | 6 |
| — Backwards | mm | 0 |
| — upwards | mm | 6 |
| — at the side | mm | 6 |
| — downwards | mm | 6 |
| • for live parts | | |
| — forwards | mm | 6 |
| — Backwards | mm | 0 |
| — upwards | mm | 6 |
| — downwards | mm | 6 |
| — at the side | mm | 6 |

| Connections/ Terminals: | | |
|---|---|---|
| **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-section** | | |
| • for main contacts | | |
| — single or multi-stranded | | 2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²) |
| — finely stranded with core end processing | | 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² |
| • for AWG conductors for main contacts | | 2x (16 ... 12), 2x (14 ... 8) |
| • for auxiliary contacts | | |
| — single or multi-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 conductors for auxiliary contacts | | 2x (20 ... 16), 2x (18 ... 14) |

| Safety related data: | | |
|---|---|---|
| **B10 value with high demand rate acc. to SN 31920** | | 1 000 000 |
| **Proportion of dangerous failures** | | |
| • with low demand rate acc. to SN 31920 | % | 40 |
| • with high demand rate acc. to SN 31920 | % | 75 |
| **Failure rate [FIT] with low demand rate acc. to SN 31920** | FIT | 100 |
| **T1 value for proof test interval or service life acc. to IEC 61508** | y | 20 |
| **Protection against electrical shock** | | finger-safe |

| Mechanical data: | | |
|---|---|---|
| **Size of contactor** | | S0 |

| Communication/ Protocol: | | |
|---|---|---|
| **Product function Bus communication** | | No |
| **Protocol is supported** | | |
| • AS-interface protocol | | No |
| **Product function Control circuit interface with IO link** | | No |

| Ambient conditions: | | |
|---|---|---|
| **Installation altitude at height above sea level maximum** | m | 2 000 |
| **Ambient temperature** | | |
| • during operation | °C | -25 ... +60 |
| • during storage | °C | -55 ... +80 |

| Certificates/ approvals: |
|---|

| General Product Approval | | | Declaration of Conformity | Test Certificates | Shipping Approval |
|---|---|---|---|---|---|
| CSA | UL | EAC | EG-Konf. | Special Test Certificate | ABS |

| Shipping Approval | | | | | |
|---|---|---|---|---|---|
| BUREAU VERITAS | DNV | GL | LRS | PRS | RINA |

| Shipping Approval | other | |
|---|---|---|
| RMRS | Environmental Confirmations | other |

## Further information

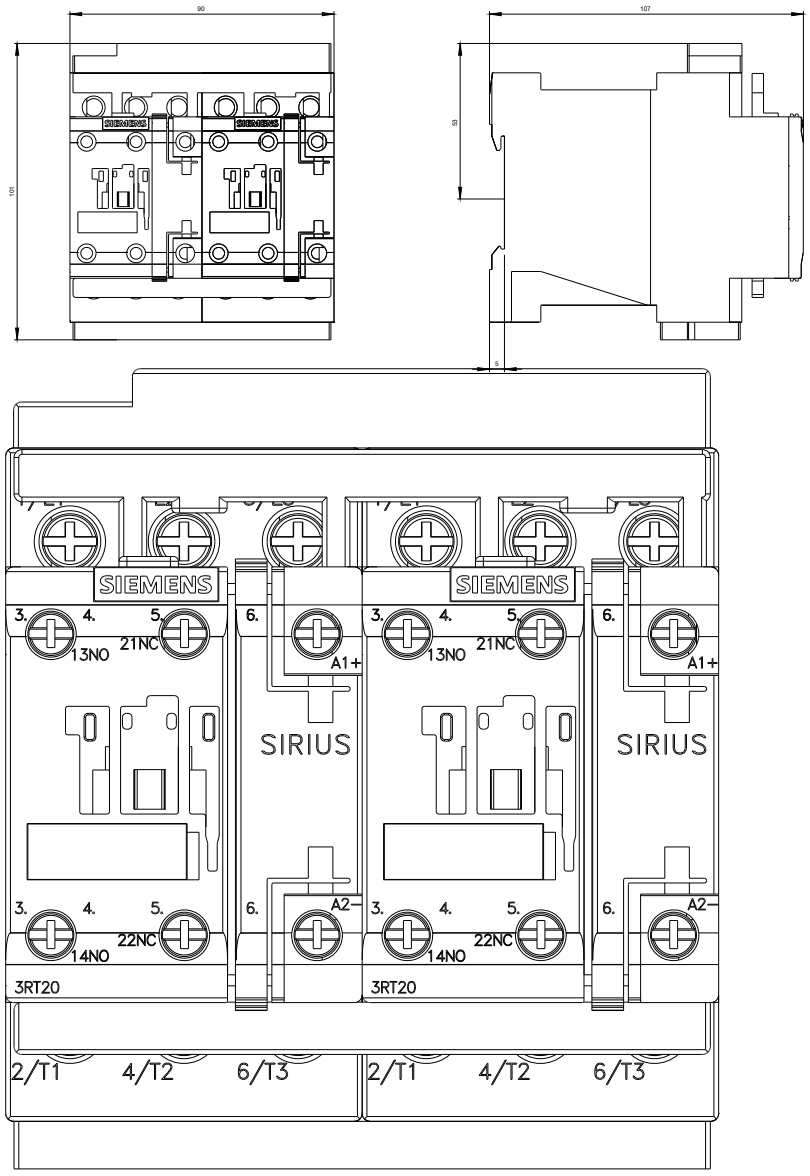
**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

**Industry Mall (Online ordering system)**
http://www.siemens.com/industrymall

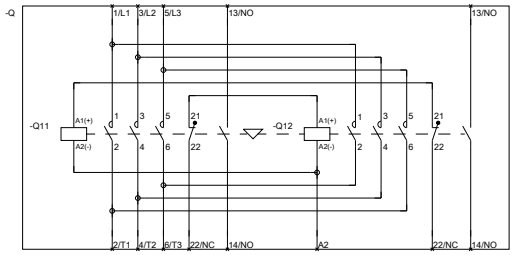
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23278XB301BB4

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3RA23278XB301BB4/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA23278XB301BB4&lang=en



WENDEKOMBINATION BGR. S0




REVERSING COMB. SZ S0

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