SIEMENS

## Data sheet 3RA2338-8XB30-1AK6

Reversing contactor assembly AC-3, 37 kW/400 V 110 V AC 50 Hz/120 V 60 Hz, 3-pole Size S2, screw terminal electrical and mechanical Interlock 2 NO integrated

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Reversing contactor assembly |
| **product type designation** | 3RA23 |
| • Manufacturer's article number 1 of the supplied contactor | 3RT2038-1AK60 |
| • Manufacturer's article number 2 of the supplied contactor | 3RT2038-1AK60 |
| • Manufacturer's article number of the supplied RS assembly kit | 3RA2933-2AA1 |

| General technical data | |
|---|---|
| **Size of contactor** | S2 |
| • product extension auxiliary switch | Yes |
| **insulation voltage** | |
| • with degree of pollution 3 at AC rated value | 690 V |
| **surge voltage resistance rated value** | 6 kV |
| **protection class IP** | |
| • on the front | IP20 |
| **Shock resistance at rectangular impulse** | |
| • at AC | 11.8g / 5 ms, 11.6g / 10 ms |

| | |
|---|---|
| **Shock resistance with sine pulse** | |
| • at AC | 18.5g / 5 ms, 11.6g / 10 ms |
| **Mechanical service life (switching cycles)** | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| **reference code acc. to DIN EN 81346-2** | Q |

## Ambient conditions

| | |
|---|---|
| • installation altitude at height above sea level maximum | 2 000 m |
| • ambient temperature during operation | -25 ... +60 °C |
| • ambient temperature during storage | -55 ... +80 °C |

## Main circuit

| | |
|---|---|
| **number of poles for main current circuit** | 3 |
| **Number of NO contacts for main contacts** | 3 |
| **Number of NC contacts for main contacts** | 0 |
| • operating voltage at AC-3 rated value maximum | 690 V |
| • | |
| — operating current at AC-3 at 400 V rated value | 80 A |
| **Operating current** | |
| • at 1 current path at DC-1 | |
| — at 24 V rated value | 55 A |
| — at 110 V rated value | 4.5 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 55 A |
| — at 110 V rated value | 25 A |
| • with 3 current paths in series at DC-1 | |
| — at 24 V rated value | 55 A |
| — at 110 V rated value | 55 A |
| **Operating current** | |
| • at 1 current path at DC-3 at DC-5 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 2.5 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 55 A |
| — at 110 V rated value | 25 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 55 A |
| — at 110 V rated value | 55 A |

| | |
|---|---|
| • operating power at AC-3 | |
| — at 400 V rated value | 37 kW |
| — at 690 V rated value | 45 kW |
| • Operating power at AC-4 at 400 V rated value | 30 kW |
| **No-load switching frequency** | 1 500 1/h |
| operating frequency at AC-3 maximum | 500 1/h |

| Control circuit/ Control | |
|---|---|
| **Type of voltage of the control supply voltage** | AC |
| **Control supply voltage 1 at AC** | |
| • at 50 Hz rated value | 110 V |
| • at 60 Hz rated value | 120 V |
| **Operating range factor control supply voltage rated value of magnet coil at AC** | |
| • at 50 Hz | 0.8 ... 1.1 |
| • at 60 Hz | 0.8 ... 1.1 |
| **Apparent pick-up power of magnet coil at AC** | |
| • at 50 Hz | 212 V·A |
| • at 60 Hz | 188 V·A |
| **Inductive power factor with closing power of the coil** | |
| • at 50 Hz | 0.67 |
| • at 60 Hz | 0.65 |
| **Apparent holding power of magnet coil at AC** | |
| • at 50 Hz | 18.5 V·A |
| • at 60 Hz | 16.5 V·A |
| **Inductive power factor with the holding power of the coil** | |
| • at 50 Hz | 0.36 |
| • at 60 Hz | 0.39 |

| Auxiliary circuit | |
|---|---|
| • Number of NC contacts for auxiliary contacts per direction of rotation | 0 |
| • Number of NO contacts for auxiliary contacts per direction of rotation | 1 |
| • Number of NO contacts for auxiliary contacts instantaneous contact | 2 |
| **Operating current of auxiliary contacts at AC-12 maximum** | 10 A |
| **operating current of auxiliary contacts at AC-15** | |
| • at 230 V | 6 A |
| • at 400 V | 3 A |
| **operating current of auxiliary contacts at DC-13** | |
| • at 24 V | 10 A |

| | |
|---|---|
| • at 60 V | 2 A |
| • at 110 V | 1 A |
| • at 220 V | 0.3 A |
| **contact reliability of 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 | 65 A |
| • at 600 V rated value | 62 A |
| **yielded mechanical performance [hp]** | |
| • for single-phase AC motor | |
| — at 110/120 V rated value | 5 hp |
| — at 230 V rated value | 15 hp |
| • for three-phase AC motor | |
| — at 220/230 V rated value | 20 hp |
| — at 460/480 V rated value | 50 hp |
| — at 575/600 V rated value | 60 hp |
| **contact rating of auxiliary contacts according to UL** | A600 / Q600 |

## Short-circuit protection

| | |
|---|---|
| • Design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A |
| • Design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A |
| • design of the fuse link for short-circuit protection of the auxiliary switch required | fuse 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** | 141 mm |
| **width** | 120 mm |
| **depth** | 130 mm |
| **required spacing** | |
| • with side-by-side mounting | |
| — forwards | 10 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |
| • for grounded parts | |

| | |
|---|---|
| — forwards | 10 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — at the side | 10 mm |
| — downwards | 10 mm |
| • for live parts | |
| — forwards | 10 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |

## 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-sections for main contacts solid | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²) |
| • type of connectable conductor cross-sections for main contacts single or multi-stranded | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²) |
| • type of connectable conductor cross-sections for main contacts finely stranded with core end processing | 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) |
| • type of connectable conductor cross-sections at AWG conductors for main contacts | 2x (18 ... 2), 1x (18 ... 1) |
| • type of connectable conductor cross-sections for auxiliary contacts single or multi-stranded | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) |
| • type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • type of connectable conductor cross-sections at 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 | 73 % |
| **failure rate [FIT]** | |
| • with low demand rate acc. to SN 31920 | 100 FIT |
| **T1 value for proof test interval or service life acc. to IEC 61508** | 20 y |

## Communication/ Protocol

| | |
|---|---|
| **product function bus communication** | Yes |
| • protocol is supported AS-Interface protocol | No |
| Product function Control circuit interface with IO link | No |

## Certificates/ approvals

| General Product Approval | | | Declaration of Conformity | Test Certificates |
|---|---|---|---|---|
| CSA | UL | EAC | EG-Konf. | Miscellaneous / Type Test Certificates/Test Report |

| Marine / Shipping | | | | | |
|---|---|---|---|---|---|
| ABS | BUREAU VERITAS | LRS | PRS | RINA | RMRS |

| Marine / Shipping | other |
|---|---|
| DNVGL.COM/AF | Confirmation |

## Further information

**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=3RA2338-8XB30-1AK6

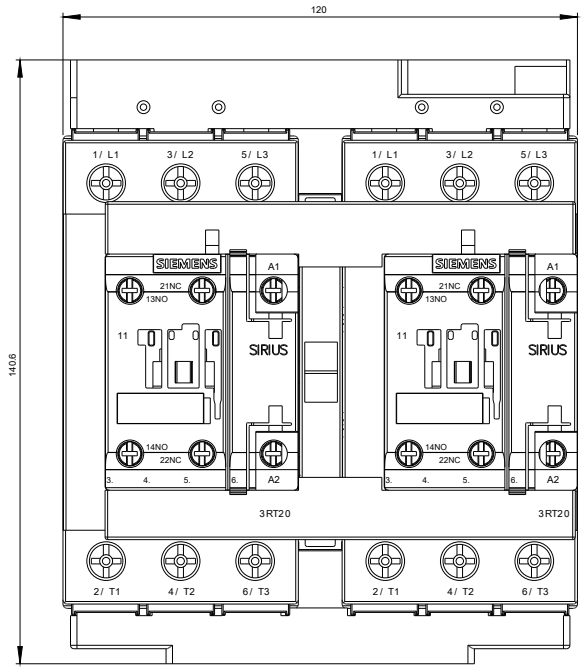
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2338-8XB30-1AK6

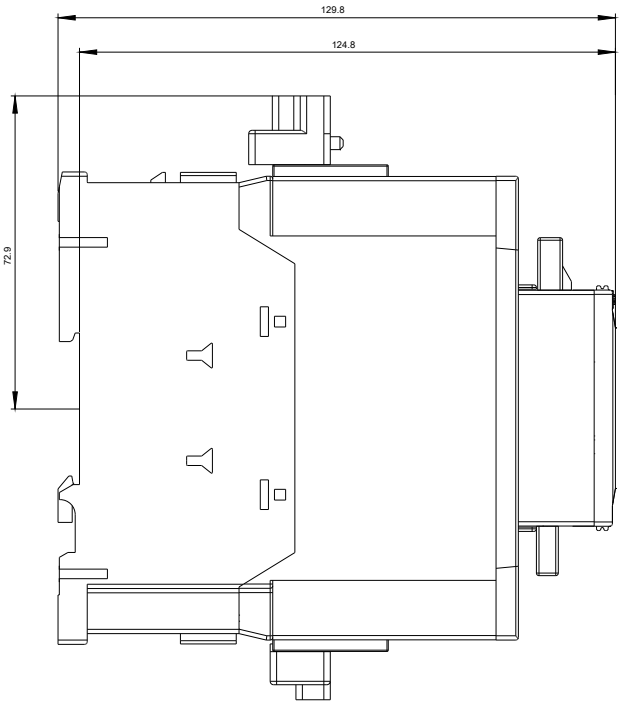
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1AK6

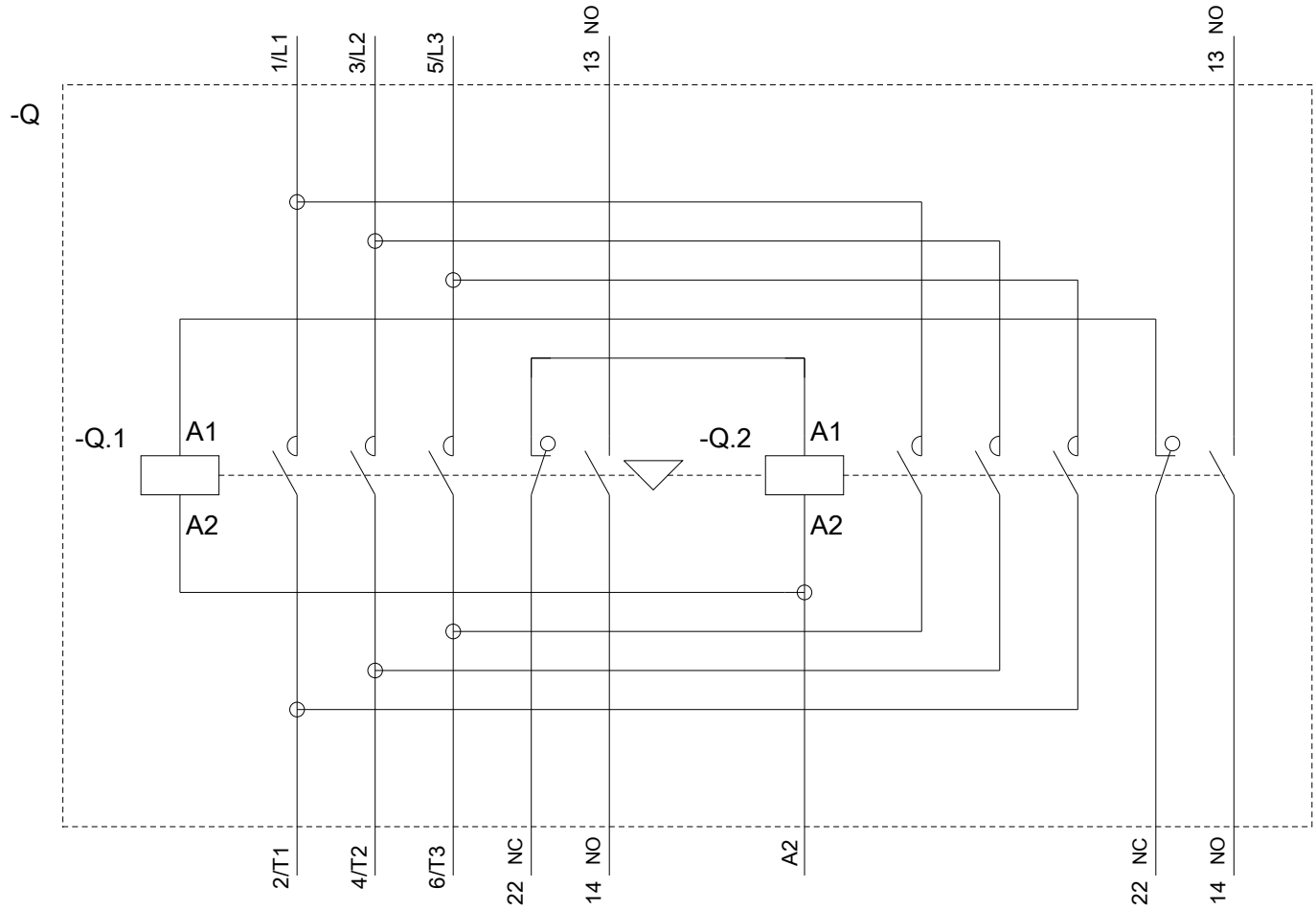
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2338-8XB30-1AK6&lang=en

**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1AK6/char

**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2338-8XB30-1AK6&objecttype=14&gridview=view1



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