SIEMENS

## Data sheet 3RA2345-8XB30-1AL2



Reversing contactor assembly, AC-3, 37 kW 400 V, 230 V AC/50/60 Hz 3-pole, Size S3 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 | 3RT2045-1AL20 |
| ● 2 of the supplied contactor | 3RT2045-1AL20 |
| ● of the supplied RS assembly kit | 3RA2943-2AA1 |
| **General technical data** | |
| **size of contactor** | S3 |
| product extension auxiliary switch | Yes |
| **shock resistance at rectangular impulse** | |
| ● at AC | 6.7 g / 5 ms, 4.0 g / 10 ms |
| **shock resistance with sine pulse** | |
| ● at AC | 10.6 g / 5 ms, 6.3 g / 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 according to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 03/01/2017 |
| **Ambient conditions** | |
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | 60 °C |
| ● 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 | 1 000 V |
| operational current at AC-3 | |
| ● at 400 V rated value | 80 A |
| ● at 500 V rated value | 80 A |
| ● at 690 V rated value | 58 A |
| **operating power** | |
| ● at AC-3 | |
| — at 400 V rated value | 37 kW |
| — at 500 V rated value | 45 kW |
| — at 690 V rated value | 55 kW |


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| | |
|---|---|
| ● at AC-4 at 400 V rated value | 37 kW |
| operating frequency at AC-3 maximum | 1 000 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 | 230 V |
| ● at 60 Hz rated value | 230 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 | 348 VA |
| ● at 60 Hz | 296 VA |
| **inductive power factor with closing power of the coil** | |
| ● at 50 Hz | 0.62 |
| ● at 60 Hz | 0.55 |
| **apparent holding power of magnet coil at AC** | |
| ● at 50 Hz | 25 VA |
| ● at 60 Hz | 18 VA |
| **inductive power factor with the holding power of the coil** | |
| ● at 50 Hz | 0.35 |
| ● at 60 Hz | 0.41 |
| **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 |
| ● instantaneous contact | 2 |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 77 A |
| ● at 600 V rated value | 62 A |
| yielded mechanical performance [hp] for 3-phase AC motor | |
| ● at 200/208 V rated value | 25 hp |
| ● at 220/230 V rated value | 30 hp |
| ● at 460/480 V rated value | 60 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: 355 A |
| — with type of assignment 2 required | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A |
| ● 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 |
| **fastening method** | screw and snap-on mounting onto 35 mm standard mounting rail |
| **height** | 160 mm |
| **width** | 150 mm |
| **depth** | 152 mm |
| **required spacing** | |
| ● with side-by-side mounting | |
| — forwards | 10 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |


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| | |
|---|---|
| — 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 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 (2.5 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) |
| — finely stranded with core end processing | 2x (2.5 ... 35 mm²), 1x (2.5 ... 50 mm²) |
| — finely stranded without core end processing | 2x (10 ... 35 mm²), 1x (10 ... 50 mm²) |
| • at AWG cables for main contacts | 2x (10 ... 1/0), 1x (10 ... 2/0) |
| **type of connectable conductor cross-sections** | |
| • for auxiliary contacts | |
| — 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) |
| • at AWG cables for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14) |
| **Safety related data** | |
| **proportion of dangerous failures** | |
| • with low demand rate according to SN 31920 | 40 % |
| • with high demand rate according to SN 31920 | 73 % |
| T1 value for proof test interval or service life according to IEC 61508 | 20 y |
| **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** | 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 |
|---|---|---|
| Confirmation | | Type Test Certificates/Test Report |

**Marine / Shipping**

ABS DNV LRS PRS RINA RMRS


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| other | Dangerous Good |
| --- | --- |
| Confirmation | Transport Information |

## 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=3RA2345-8XB30-1AL2
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2345-8XB30-1AL2
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2345-8XB30-1AL2
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2345-8XB30-1AL2&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2345-8XB30-1AL2/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2345-8XB30-1AL2&objecttype=14&gridview=view1

**last modified:** 2/8/2022


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