SIEMENS

## Data sheet 3RA2446-8XF32-1AL2

Contactor assembly for star-delta (wye-delta) start AC-3, 90 kW/400 V 230 V AC, 50/60 Hz Size S3, screw terminal electrical and mechanical interlock 3 NO+3 NC

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Contactor assembly for star-delta (wye-delta) start |
| **product type designation** | 3RA24 |
| **manufacturer's article number** | |
| ● 1 of the supplied contactor | 3RT2046-1AL20 |
| ● 2 of the supplied contactor | 3RT2046-1AL20 |
| ● 3 of the supplied contactor | 3RT2037-1AL20 |
| ● of the supplied RS assembly kit | 3RA2943-2C |
| ● of the supplied function module for wye-delta circuits | 3RA2816-0EW20 |
| **General technical data** | |
| **size of contactor** | S3 |
| product extension auxiliary switch | No |
| **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 (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)** | 03/01/2017 |
| **SVHC substance name** | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8 |
| **Weight** | 5.45 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 |
| **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 |
| **operational current** | |
| ● at AC-3 | |
| — at 400 V rated value | 160 A |
| **operating power** | |
| ● at AC-3 | |

| | |
|---|---|
| — at 400 V rated value | 90 kW |
| — at 690 V rated value | 132 kW |
| **operating frequency** | |
| ● at AC-3 maximum | 850 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 | 698 VA |
| ● at 60 Hz | 594 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 | 52 VA |
| ● at 60 Hz | 38 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** | |
| ● instantaneous contact | 3 |
| number of NO contacts for auxiliary contacts | |
| ● instantaneous contact | 3 |
| **UL/CSA ratings** | |
| **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 |
| — 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 DIN rail |
| **height** | 180 mm |
| **width** | 220 mm |
| **depth** | 244 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 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) |
| **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) |
| • for AWG cables for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14) |
| **Safety related data** | |
| product function suitable for safety function | Yes |
| 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 |
| protocol is supported AS-Interface protocol | No |
| product function control circuit interface with IO link | No |

**Approvals Certificates**

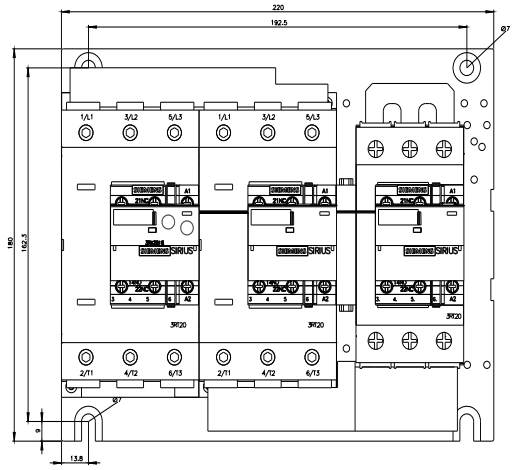
| General Product Approval | | | other | Dangerous goods |
|---|---|---|---|---|
| CE EG-Konf. | UKCA | Confirmation | EAC Confirmation | Transport Information |

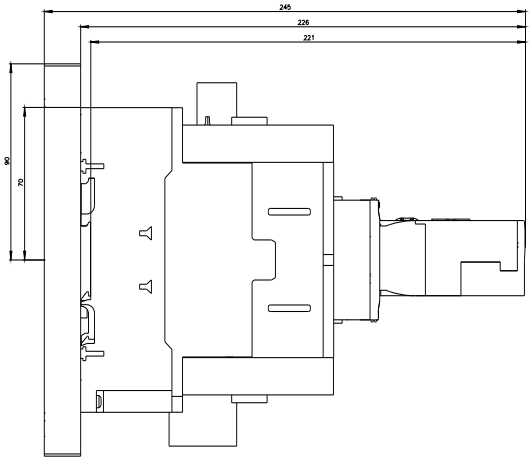
**Environment**

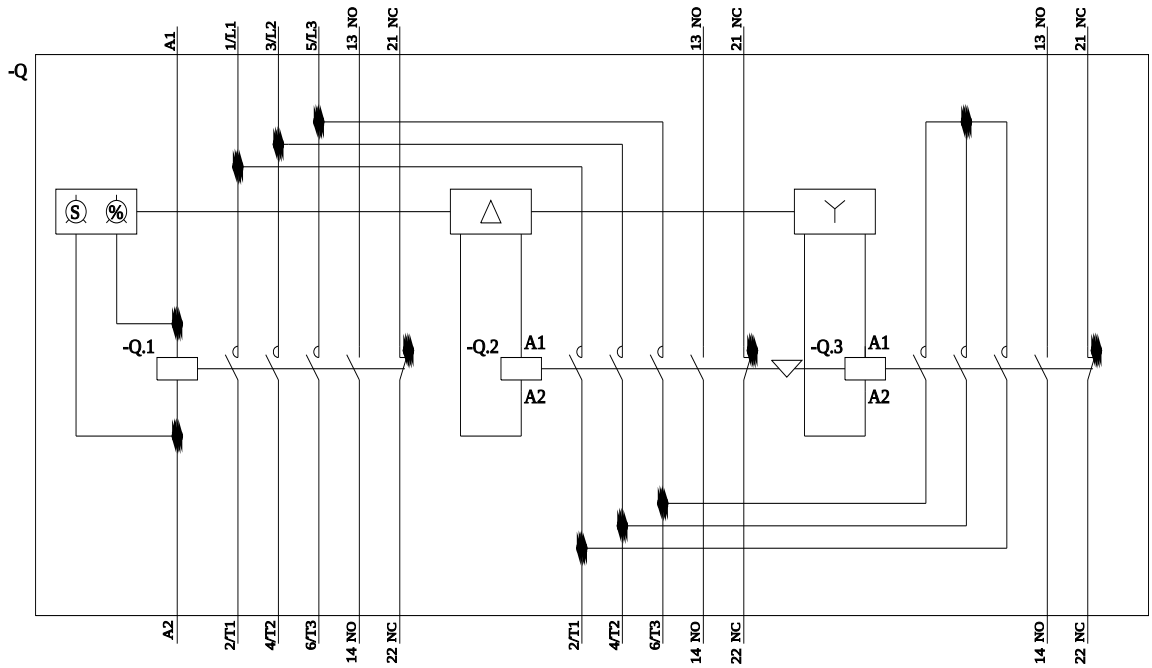
Environmental Confirmations

**Further information**

**Information on the packaging**
https://support.industry.siemens.com/cs/ww/en/view/109813875
**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=3RA2446-8XF32-1AL2
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2446-8XF32-1AL2
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2446-8XF32-1AL2&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2446-8XF32-1AL2&objecttype=14&gridview=view1

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