SIEMENS

## Data sheet 3RA6500-2EB43

SIRIUS Compact load feeder Reversing starter for IO-Link 400 V 24 V DC 8...32 A IP20 Connection main circuit: plug-in, without terminals Connection control circuit: Spring-type terminal

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|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Compact starter for IO-Link |
| **design of the product** | reversing starter |
| **product type designation** | 3RA65 |
| **General technical data** | |
| product function control circuit interface to parallel wiring | No |
| product extension auxiliary switch | Yes |
| **power loss [W] for rated value of the current** | |
| ● at AC in hot operating state | 5.4 W |
| ● at AC in hot operating state per pole | 1.8 W |
| ● without load current share typical | 3.4 W |
| **insulation voltage rated value** | 690 V |
| **degree of pollution** | 3 |
| **surge voltage resistance rated value** | 6 000 V |
| **degree of protection NEMA rating** | other |
| **shock resistance** | a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes |
| **vibration resistance** | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s²; 10 cycles |
| **mechanical service life (operating cycles)** | |
| ● of the main contacts typical | 10 000 000 |
| ● of auxiliary contacts typical | 10 000 000 |
| ● of the signaling contacts typical | 10 000 000 |
| **electrical endurance (operating cycles) of auxiliary contacts** | |
| ● at DC-13 at 6 A at 24 V typical | 30 000 |
| ● at AC-15 at 6 A at 230 V typical | 200 000 |
| **type of assignment** | continous operation according to IEC 60947-6-2 |
| **reference code according to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 05/01/2012 |
| **Ambient conditions** | |
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -20 ... +60 °C |
| ● during storage | -55 ... +80 °C |
| ● during transport | -55 ... +80 °C |
| relative humidity during operation | 10 ... 90 % |
| **Main circuit** | |
| **number of poles for main current circuit** | 3 |
| **adjustable current response value current of the current-dependent overload release** | 8 ... 32 A |
| **formula for making capacity limit current** | 12 x Ie |
| **formula for limit current breaking capacity** | 10 x Ie |

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| **yielded mechanical performance for 4-pole AC motor** | |
| ● at 400 V rated value | 15 kW |
| operating voltage at AC-3 rated value maximum | 400 V |
| **operational current** | |
| ● at AC at 400 V rated value | 32 A |
| ● at AC-3 at 400 V rated value | 32 A |
| ● at AC-43 | |
| — at 400 V rated value | 29 A |
| **operating power** | |
| ● at AC-3 at 400 V rated value | 15 kW |
| ● at AC-43 | |
| — at 400 V rated value | 15 000 W |
| **no-load switching frequency** | 3 600 1/h |
| **operating frequency** | |
| ● at AC-41 according to IEC 60947-6-2 maximum | 750 1/h |
| ● at AC-43 according to IEC 60947-6-2 maximum | 250 1/h |
| **Control circuit/ Control** | |
| **type of voltage** | DC |
| **control supply voltage 1** | |
| ● at DC rated value | 24 V |
| ● at DC | 24 ... 24 V |
| **holding power** | |
| ● at DC maximum | 3.4 W |
| **Auxiliary circuit** | |
| **number of NC contacts for auxiliary contacts** | 0 |
| **number of NO contacts for auxiliary contacts** | 0 |
| number of NO contacts of instantaneous short-circuit trip unit for signaling contact | 0 |
| number of CO contacts of the current-dependent overload release for signaling contact | 0 |
| **operational current of auxiliary contacts at AC-12 maximum** | 10 A |
| operational current of auxiliary contacts at DC-13 at 250 V | 0.27 A |
| **Protective and monitoring functions** | |
| **trip class** | CLASS 10 and 20 adjustable |
| **operating short-circuit current breaking capacity (Ics)** | |
| ● at 400 V | 53 kA |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 32 A |
| yielded mechanical performance [hp] for 3-phase AC motor | |
| ● at 200/208 V rated value | 7.5 hp |
| ● at 220/230 V rated value | 10 hp |
| ● at 460/480 V rated value | 20 hp |
| **Short-circuit protection** | |
| **product function short circuit protection** | Yes |
| **design of short-circuit protection** | electromagnetic |
| **design of the fuse link** | |
| ● for short-circuit protection of the auxiliary switch required | fuse gL/gG: 10 A |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | any |
| ● recommended | vertical, on horizontal standard DIN rail |
| **fastening method** | screw and snap-on mounting |
| **height** | 191 mm |
| **width** | 90 mm |
| **depth** | 165 mm |
| **Connections/ Terminals** | |
| **product component removable terminal for main circuit** | Yes |
| **product component removable terminal for auxiliary and control circuit** | Yes |
| **type of electrical connection** | |
| ● for main current circuit | plug-in without terminals |

| | |
|---|---|
| ● for auxiliary and control circuit | spring-loaded terminals |
| type of connectable conductor cross-sections for main contacts | |
| ● solid | 2x (2.5 ... 6 mm²), 1x 10 mm² |
| ● finely stranded with core end processing | 2x (2.5 ... 6 mm²) |
| ● finely stranded without core end processing | 2x (2.5 ... 6 mm²) |
| **type of connectable conductor cross-sections** | |
| ● for auxiliary contacts | |
| — solid | 2x (0.25 ... 1.5 mm²) |
| — finely stranded with core end processing | 2x (0.25 ... 1.5 mm²) |
| — finely stranded without core end processing | 2x (0.25 ... 1.5 mm²) |
| ● for AWG cables for auxiliary contacts | 2x (24 ... 16) |
| **Safety related data** | |
| B10 value with high demand rate according to SN 31920 | 1 500 000 |
| **proportion of dangerous failures** | |
| ● with high demand rate according to SN 31920 | 50 % |
| **protection class IP on the front according to IEC 60529** | IP20 |
| **touch protection on the front according to IEC 60529** | finger-safe |
| **Communication/ Protocol** | |
| **product function bus communication** | Yes |
| **protocol is supported** | |
| ● AS-Interface protocol | No |
| ● IO-Link protocol | Yes |
| product function control circuit interface with IO link | Yes |
| **IO-Link transfer rate** | COM2 (38,4 kBaud) |
| **point-to-point cycle time between master and IO-Link device minimum** | 2.5 ms |
| **type of voltage supply via input/output link master** | No |
| **data volume** | |
| ● of the address range of the inputs with cyclical transfer total | 2 byte |
| ● of the address range of the outputs with cyclical transfer total | 2 byte |
| **Electromagnetic compatibility** | |
| **conducted interference** | |
| ● due to burst according to IEC 61000-4-4 | 4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-Link, 2 kV limit switches, 2 kV line hand-held device |
| ● due to conductor-earth surge according to IEC 61000-4-5 | 4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection |
| ● due to conductor-conductor surge according to IEC 61000-4-5 | 2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection |
| ● due to high-frequency radiation according to IEC 61000-4-6 | 0.15-80Mhz at 10V |
| **field-based interference according to IEC 61000-4-3** | 80 ... 3000 MHz at 10V/m |
| **electrostatic discharge according to IEC 61000-4-2** | 8 kV |
| **conducted HF interference emissions according to CISPR11** | 150 kHz ... 30 MHz Class A |
| **field-bound HF interference emission according to CISPR11** | 30 ... 1000 MHz Class A |
| **Supply voltage** | |
| **Supply voltage required Auxiliary voltage** | Yes |
| **Display** | |
| **number of LEDs** | 5 |
| display version as status display of the input/output link device | green/red dual LED |

**Certificates/ approvals**

| General Product Approval | | EMC | Functional Safety/Safety of Machinery |
|---|---|---|---|
| CCC | Confirmation | UL, EAC, RCM, VDE | |

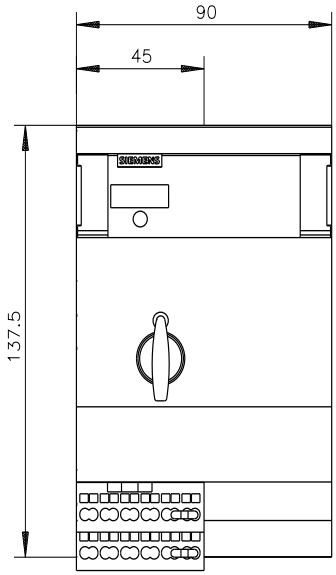
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---|---|---|

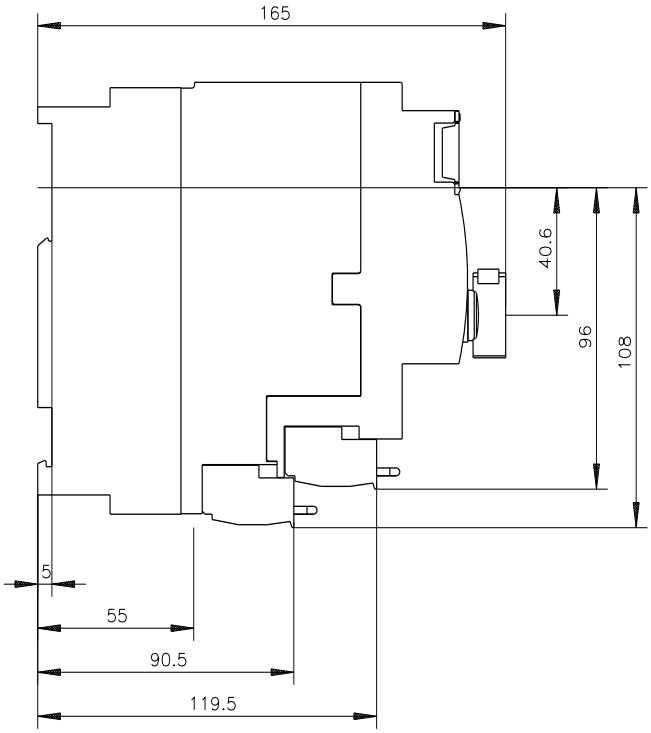
Type Test Certific-
ates/Test Report

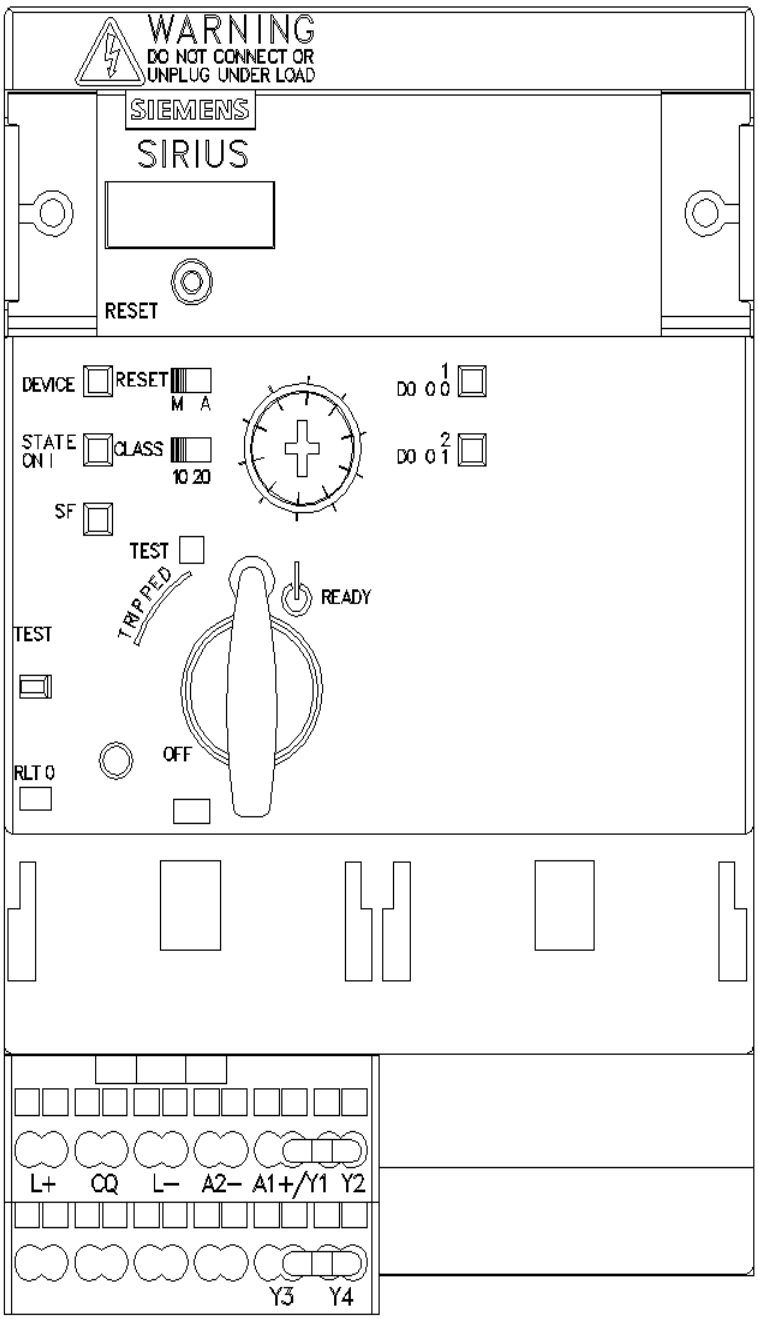
| Marine / Shipping | other | Dangerous Good |
|---|---|---|
| RINA | Confirmation | Transport Information |

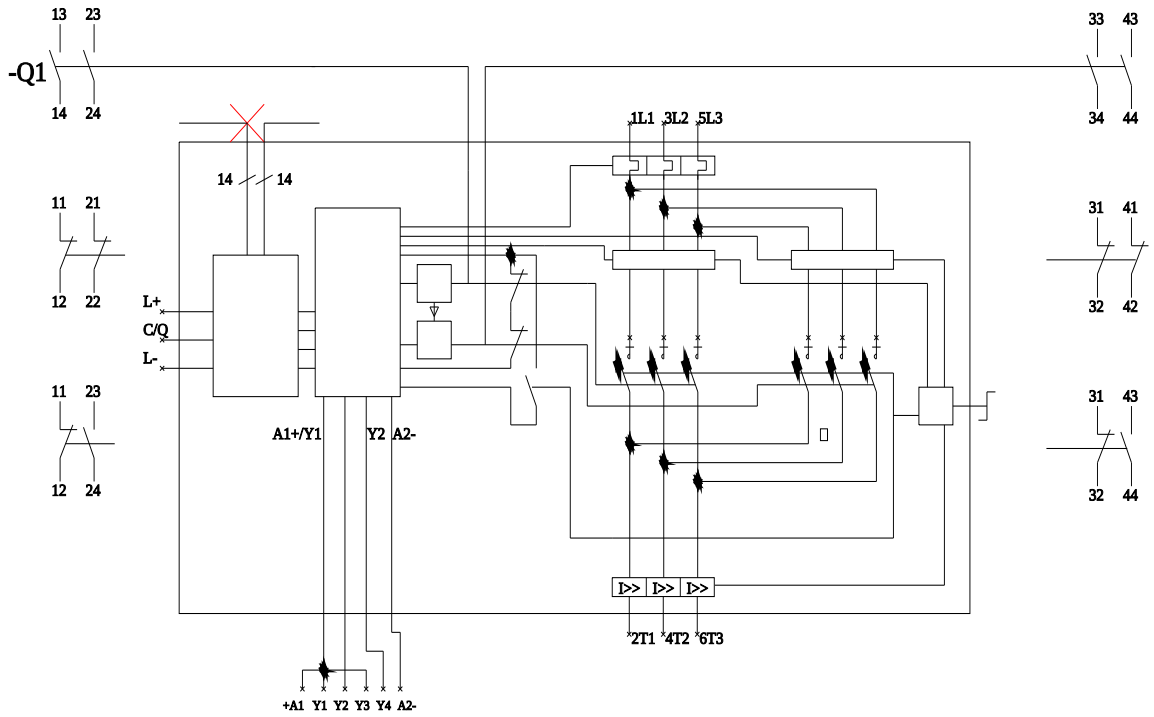
## Further information

**Siemens has decided to exit the Russian market (see here).**
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business
**Siemens is working on the renewal of the current EAC certificates.**
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).
**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=3RA6500-2EB43
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6500-2EB43
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-2EB43
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-2EB43&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-2EB43/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6500-2EB43&objecttype=14&gridview=view1





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