SIEMENS

## Data sheet 3RA6400-2CB43

SIRIUS Compact load feeder DOL starter for IO-Link 690 V 24 V DC 1...4 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** | direct starter |
| **product type designation** | 3RA64 |
| **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 | 1 W |
| ● per pole | 0.33 W |
| **power loss [W] for rated value of the current without load current share typical** | 2.9 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 (switching 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 (switching 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 acc. to IEC 81346-2** | Q |
| Substance Prohibitance (Date) | 01.05.2012 00:00:00 |
| **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 |

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| **adjustable current response value current of the current-dependent overload release** | 1 ... 4 A |
| **formula for making capacity limit current** | 12 x Ie |
| **formula for breaking capacity limit current** | 10 x Ie |
| **yielded mechanical performance for 4-pole AC motor** | |
| ● at 400 V rated value | 1.5 kW |
| ● at 500 V rated value | 2.2 kW |
| ● at 690 V rated value | 3 kW |
| operating voltage at AC-3 rated value maximum | 690 V |
| **operational current** | |
| ● at AC at 400 V rated value | 4 A |
| ● at AC-43 | |
| — at 400 V rated value | 3.6 A |
| — at 500 V rated value | 3.9 A |
| — at 690 V rated value | 3.8 A |
| **operating power** | |
| ● at AC-3 at 400 V rated value | 1 500 W |
| ● at AC-43 | |
| — at 400 V rated value | 1 500 W |
| — at 500 V rated value | 2 200 W |
| — at 690 V rated value | 3 000 W |
| **no-load switching frequency** | 3 600 1/h |
| **operating frequency** | |
| ● at AC-41 acc. to IEC 60947-6-2 maximum | 750 1/h |
| ● at AC-43 acc. to IEC 60947-6-2 maximum | 250 1/h |
| **Control circuit/ Control** | |
| **type of voltage** | DC |
| **holding power** | |
| ● at DC maximum | 2.9 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 |
| **breaking capacity operating short-circuit current (Ics)** | |
| ● at 400 V | 53 kA |
| ● at 500 V rated value | 3 kA |
| ● at 690 V rated value | 3 kA |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 4 A |
| ● at 600 V rated value | 4 A |
| yielded mechanical performance [hp] for 3-phase AC motor | |
| ● at 200/208 V rated value | 0.75 hp |
| ● at 220/230 V rated value | 0.75 hp |
| ● at 460/480 V rated value | 2 hp |
| ● at 575/600 V rated value | 3 hp |
| **Short-circuit protection** | |
| **product function short circuit protection** | Yes |
| **design of short-circuit protection** | electromagnetic |
| **design of the fuse link** | |

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| ● 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 mounting rail |
| **fastening method** | screw and snap-on mounting |
| **height** | 191 mm |
| **width** | 45 mm |
| **depth** | 165 mm |
| **Connections/ Terminals** | |
| **product component** | |
| ● removable terminal for main circuit | Yes |
| ● 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 (1.5 ... 6 mm²), 1x 10 mm² |
| — finely stranded with core end processing | 2x (1.5 ... 6 mm²) |
| — finely stranded without core end processing | 2x (1.5 ... 6 mm²) |
| ● at AWG cables for main contacts | 2x (16 ... 10), 1x 8 |
| **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) |
| ● at AWG cables for auxiliary contacts | 2x (24 ... 16) |
| **Safety related data** | |
| B10 value with high demand rate acc. to SN 31920 | 3 000 000 |
| **proportion of dangerous failures** | |
| ● with high demand rate acc. to SN 31920 | 50 % |
| **protection class IP on the front acc. to IEC 60529** | IP20 |
| **touch protection on the front acc. to IEC 60529** | finger-safe |
| **Communication/ Protocol** | |
| **product function bus communication** | Yes |
| **protocol is supported** | |
| ● 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 acc. 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 acc. to IEC 61000-4-5 | 4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection |
| ● due to conductor-conductor surge acc. to IEC 61000-4-5 | 2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection |
| ● due to high-frequency radiation acc. to IEC 61000-4-6 | 0.15-80Mhz at 10V |
| **field-based interference acc. to IEC 61000-4-3** | 80 ... 3000 MHz at 10V/m |
| **electrostatic discharge acc. to IEC 61000-4-2** | 8 kV |

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| **conducted HF interference emissions acc. to CISPR11** | 150 kHz ... 30 MHz Class A |
| **field-bound HF interference emission acc. to CISPR11** | 30 ... 1000 MHz Class A |
| **Supply voltage** | |
| **Supply voltage required Auxiliary voltage** | Yes |
| **Display** | |
| **number of LEDs** | 3 |
| display version as status display of the input/output link device | green/red dual LED |

**Certificates/ approvals**

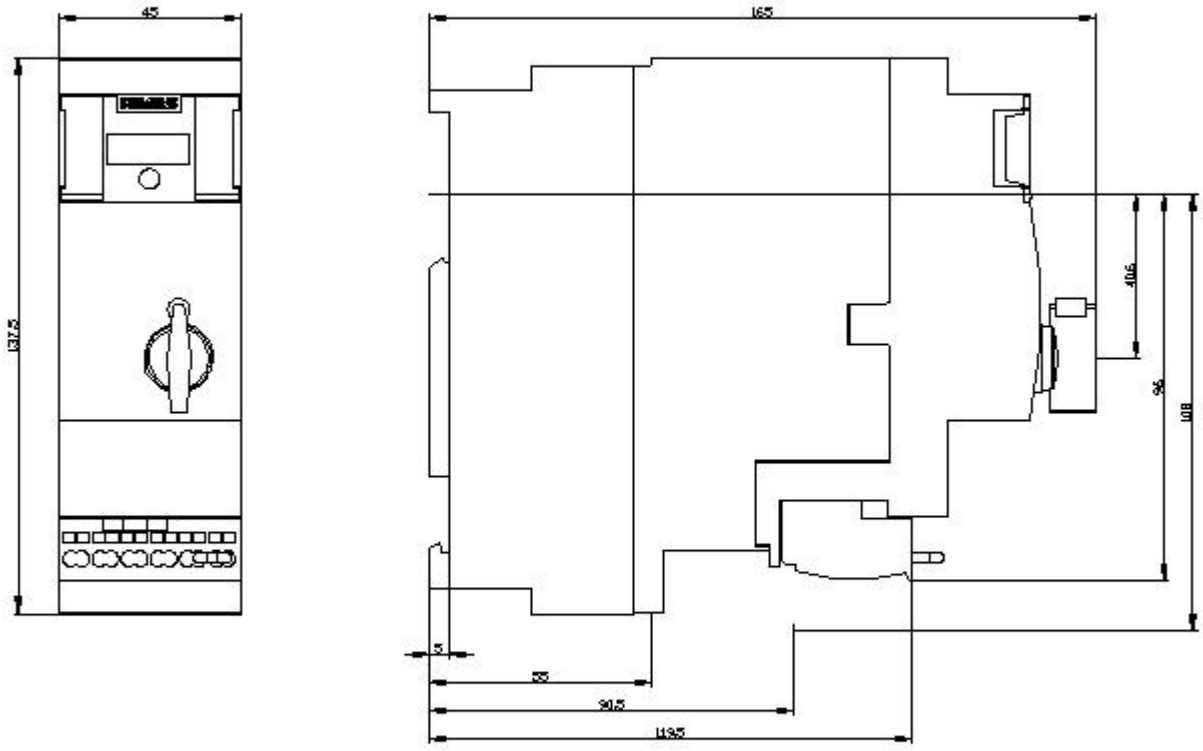
| General Product Approval | | | | EMC | Functional Safety/Safety of Machinery |
|---|---|---|---|---|---|
| CSA | CCC | UL | EAC | RCM | VDE |

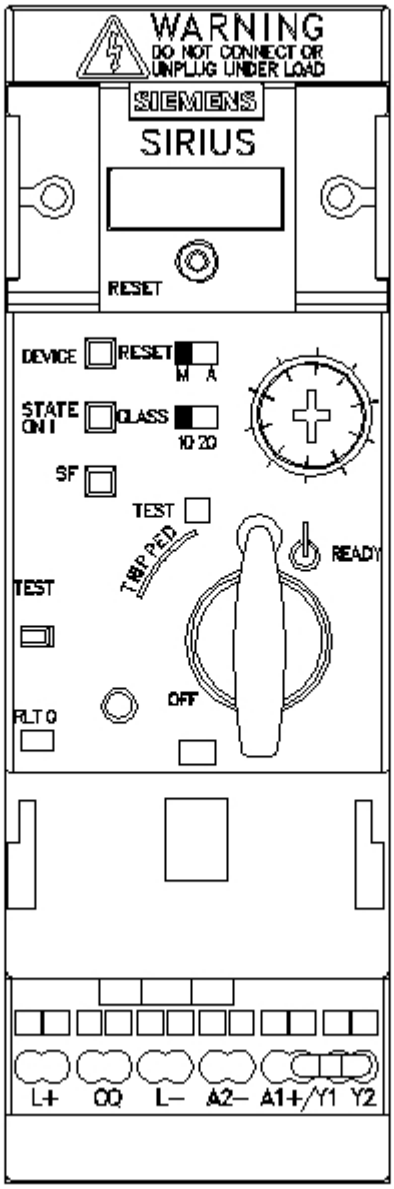
| Declaration of Conformity | Test Certificates | Marine / Shipping | | | |
|---|---|---|---|---|---|
| EG-Konf. | Type Test Certific-ates/Test Report | ABS | BUREAU VERITAS | LRS | PRS |

| Marine / Shipping | | other |
|---|---|---|
| RINA | RMRS | 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=3RA6400-2CB43
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6400-2CB43
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA6400-2CB43
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6400-2CB43&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RA6400-2CB43/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6400-2CB43&objecttype=14&gridview=view1



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