SIEMENS

## Data sheet 3RB3046-1UW1


Overload relay 12.5...50 A Electronic For motor protection Size S3, Class 10E Stand-alone installation Main circuit: Straight-through transformer Auxiliary circuit: Screw Manual-Automatic-Reset

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | solid-state overload relay |
| **product type designation** | 3RB3 |
| **General technical data** | |
| **size of overload relay** | S3 |
| **size of contactor can be combined company-specific** | S3 |
| power loss [W] for rated value of the current at AC in hot operating state | 0.2 W |
| ● per pole | 0.07 W |
| insulation voltage with degree of pollution 3 at AC rated value | 1 000 V |
| **surge voltage resistance rated value** | 8 kV |
| **maximum permissible voltage for protective separation in networks with grounded star point** | |
| ● between auxiliary and auxiliary circuit | 300 V |
| ● between auxiliary and auxiliary circuit | 300 V |
| ● between main and auxiliary circuit | 600 V |
| ● between main and auxiliary circuit | 690 V |
| **shock resistance** | 8g / 11 ms |
| ● **according to IEC 60068-2-27** | 15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms |
| **thermal current** | 50 A |
| **type of protection according to ATEX directive 2014/34/EU** | Ex II (2) G [Ex e] [Ex d] [Ex px] ; Ex II (2) D [Ex t] [Ex p] |
| certificate of suitability according to ATEX directive 2014/34/EU | PTB 09 ATEX 3001 |
| **reference code according to IEC 81346-2** | F |
| **Substance Prohibitance (Date)** | 03/01/2017 |
| **SVHC substance name** | Blei - 7439-92-1<br>Bleimonoxid (Bleioxid) - 1317-36-8 |
| **Ambient conditions** | |
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -25 ... +60 °C |
| ● during storage | -40 ... +80 °C |
| ● during transport | -40 ... +80 °C |
| **temperature compensation** | -25 ... +60 °C |
| relative humidity during operation | 10 ... 95 % |
| **Main circuit** | |
| **number of poles for main current circuit** | 3 |
| **adjustable current response value current of the current-dependent overload release** | 12.5 ... 50 A |
| **operating voltage** | |
| ● rated value | 1 000 V |
| ● at AC-3e rated value maximum | 1 000 V |

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|---|---|
| **operating frequency rated value** | 50 ... 60 Hz |
| **operational current rated value** | 50 A |
| operational current at AC-3e at 400 V rated value | 50 A |
| **operating power** | |
| ● for 3-phase motors at 400 V at 50 Hz | 7.5 ... 22 kW |
| ● for AC motors at 500 V at 50 Hz | 11 ... 30 kW |
| ● for AC motors at 690 V at 50 Hz | 11 ... 45 kW |
| **Auxiliary circuit** | |
| **design of the auxiliary switch** | integrated |
| **number of NC contacts for auxiliary contacts** | 1 |
| ● note | for contactor disconnection |
| **number of NO contacts for auxiliary contacts** | 1 |
| ● note | for message "tripped" |
| number of CO contacts for auxiliary contacts | 0 |
| **operational current of auxiliary contacts at AC-15** | |
| ● at 24 V | 4 A |
| ● at 110 V | 4 A |
| ● at 120 V | 4 A |
| ● at 125 V | 4 A |
| ● at 230 V | 3 A |
| **operational current of auxiliary contacts at DC-13** | |
| ● at 24 V | 2 A |
| ● at 60 V | 0.55 A |
| ● at 110 V | 0.3 A |
| ● at 125 V | 0.3 A |
| ● at 220 V | 0.11 A |
| **Protective and monitoring functions** | |
| **trip class** | CLASS 10E |
| **design of the overload release** | electronic |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 50 A |
| ● at 600 V rated value | 50 A |
| **contact rating of auxiliary contacts according to UL** | B600 / R300 |
| **Short-circuit protection** | |
| **design of the fuse link** | |
| ● for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 200 A |
| — with type of assignment 2 required | gG: 200 A |
| ● for short-circuit protection of the auxiliary switch required | fuse gG: 6 A |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | any |
| **fastening method** | stand-alone installation |
| **height** | 106 mm |
| **width** | 70 mm |
| **depth** | 124 mm |
| **Connections/ Terminals** | |
| **product component removable terminal for auxiliary and control circuit** | Yes |
| **type of electrical connection** | |
| ● for main current circuit | straight-through transformers |
| ● for auxiliary and control circuit | screw-type terminals |
| **arrangement of electrical connectors for main current circuit** | Top and bottom |
| **type of connectable conductor cross-sections** | |
| ● for auxiliary contacts | |
| — solid | 1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) |
| — solid or stranded | 1x (0,5 ... 4 mm²), 2x (0,5 ... 2,5 mm²) |
| — finely stranded with core end processing | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) |
| ● for AWG cables for auxiliary contacts | 2x (20 ... 14) |
| **tightening torque** | |

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| • for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| **design of screwdriver shaft** | Diameter 5 to 6 mm |
| **size of the screwdriver tip** | Pozidriv PZ 2 |
| **design of the thread of the connection screw** | |
| • of the auxiliary and control contacts | M3 |
| **Safety related data** | |
| **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** | |
| **type of voltage supply via input/output link master** | No |
| **Electromagnetic compatibility** | |
| **conducted interference** | |
| • due to burst according to IEC 61000-4-4 | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 |
| • due to conductor-earth surge according to IEC 61000-4-5 | 2 kV (line to earth) corresponds to degree of severity 3 |
| • due to conductor-conductor surge according to IEC 61000-4-5 | 1 kV (line to line) corresponds to degree of severity 3 |
| • due to high-frequency radiation according to IEC 61000-4-6 | 10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz |
| **field-based interference according to IEC 61000-4-3** | 10 V/m |
| **electrostatic discharge according to IEC 61000-4-2** | 6 kV contact discharge / 8 kV air discharge |
| **Display** | |
| display version for switching status | Slide switch |

**Approvals Certificates**

| General Product Approval | | | | | EMC |
|---|---|---|---|---|---|
| CSA | Confirmation | CCC | UL | EAC | RCM |

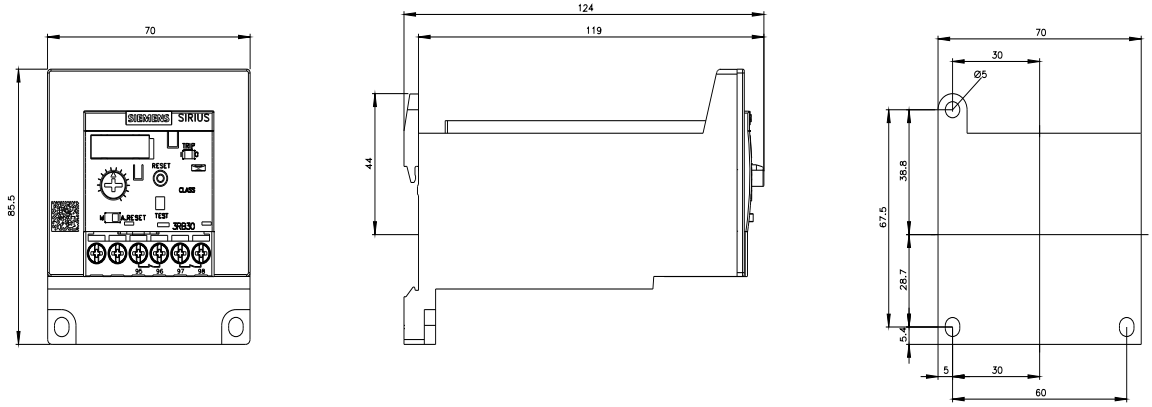
| For use in hazard-ous locations | Declaration of Conformity | Test Certificates | | Marine / Shipping |
|---|---|---|---|---|
| ATEX | UKCA, CE EG-Konf. | Special Test Certific-ate | Type Test Certific-ates/Test Report | LRS |

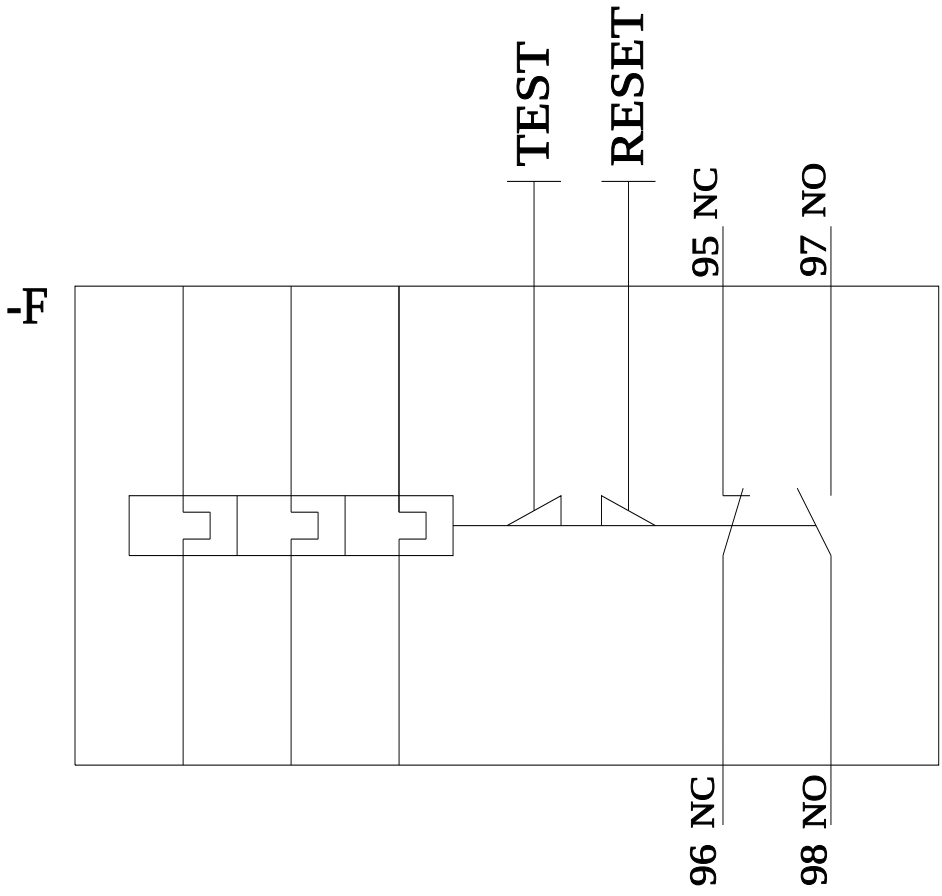
| Marine / Shipping | | | other |
|---|---|---|---|
| PRS | RINA | DNV·GL | Confirmation |

**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=3RB3046-1UW1
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3046-1UW1
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1UW1
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3046-1UW1&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1UW1/char

**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3046-1UW1&objecttype=14&gridview=view1



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