SIEMENS

## Data sheet 3RB3016-2TE0


Overload relay 4...16 A Electronic For motor protection Size S00, Class 20E Contactor mounting Main circuit: Spring-type terminal Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | solid-state overload relay |
| **product type designation** | 3RB3 |
| **General technical data** | |
| **size of overload relay** | S00 |
| **size of contactor can be combined company-specific** | S00 |
| power loss [W] for rated value of the current at AC in hot operating state | 1.1 W |
| ● per pole | 0.37 W |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| **surge voltage resistance rated value** | 6 kV |
| **maximum permissible voltage for safe isolation 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** | 15g / 11 ms |
| ● **according to IEC 60068-2-27** | 15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 9g / 11 ms |
| **vibration resistance** | 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s²; 10 cycles |
| **thermal current** | 16 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)** | 10/01/2009 |
| **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** | 4 ... 16 A |
| **operating voltage** | |
| ● rated value | 690 V |
| ● at AC-3e rated value maximum | 690 V |

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|---|---|
| **operating frequency rated value** | 50 ... 60 Hz |
| **operational current rated value** | 16 A |
| operational current at AC-3e at 400 V rated value | 16 A |
| **operating power** | |
| ● for 3-phase motors at 400 V at 50 Hz | 2.2 ... 7.5 kW |
| ● for AC motors at 500 V at 50 Hz | 2.2 ... 7.5 kW |
| ● for AC motors at 690 V at 50 Hz | 3 ... 11 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 20E |
| **design of the overload release** | electronic |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 16 A |
| ● at 600 V rated value | 16 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: 50 A, RK5: 60 A |
| — with type of assignment 2 required | gG: 50 A, J: 60 A |
| ● for short-circuit protection of the auxiliary switch required | fuse gG: 6 A |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | any |
| **fastening method** | Contactor mounting |
| **height** | 72 mm |
| **width** | 45 mm |
| **depth** | 90 mm |
| **Connections/ Terminals** | |
| **product component removable terminal for auxiliary and control circuit** | Yes |
| **type of electrical connection** | |
| ● for main current circuit | spring-loaded terminals |
| ● for auxiliary and control circuit | spring-loaded terminals |
| **arrangement of electrical connectors for main current circuit** | Top and bottom |
| **type of connectable conductor cross-sections** | |
| ● for main contacts | |
| — solid | 1x (0.5 ... 4 mm²) |
| — solid or stranded | 1x (0,5 ... 4 mm²) |
| — finely stranded with core end processing | 1x (0.5 ... 2.5 mm²) |
| — finely stranded without core end processing | 1x (0.5 ... 2.5 mm²) |
| ● at AWG cables for main contacts | 1x (20 ... 12) |
| **type of connectable conductor cross-sections** | |

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|---|---|
| ● for auxiliary contacts | |
| — solid | 2x (0.25 ... 1.5 mm²) |
| — solid or stranded | 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 | 1x (24 ... 16), 2x (24 ... 16) |
| **design of screwdriver shaft** | Diameter 5 to 6 mm |
| **size of the screwdriver tip** | Pozidriv PZ 2 |
| **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 |
| **Certificates/ approvals** | |

**General Product Approval** | **EMC**

Confirmation

**For use in hazard-ous locations** | **Declaration of Conformity** | **Test Certificates** | **Marine / Shipping**

Special Test Certific-ate | Type Test Certific-ates/Test Report

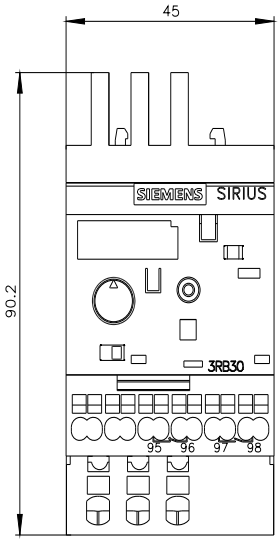
**Marine / Shipping**

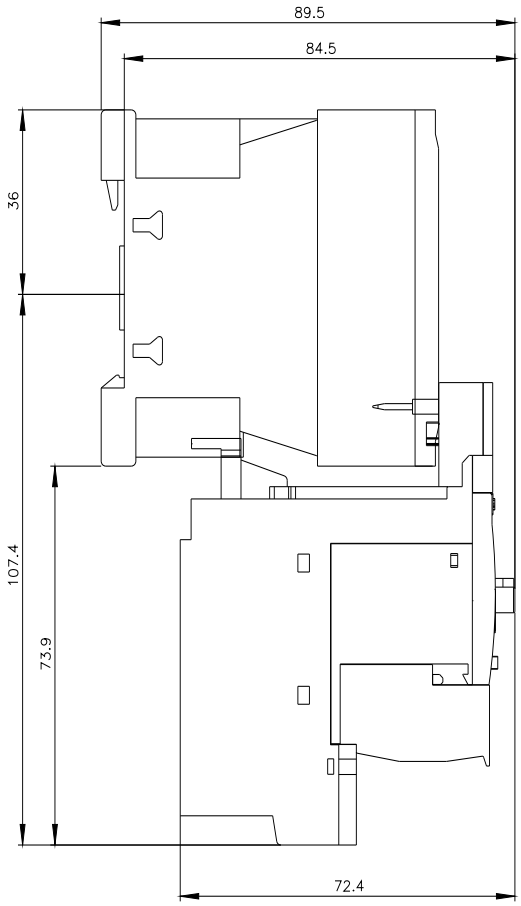
**other**

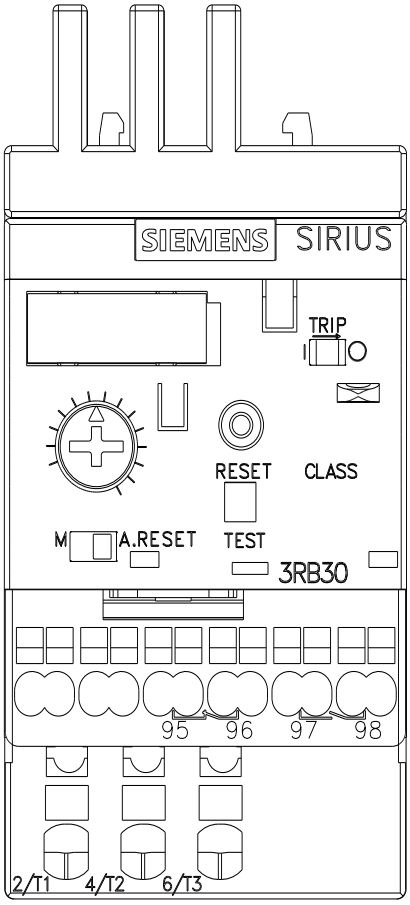
Confirmation

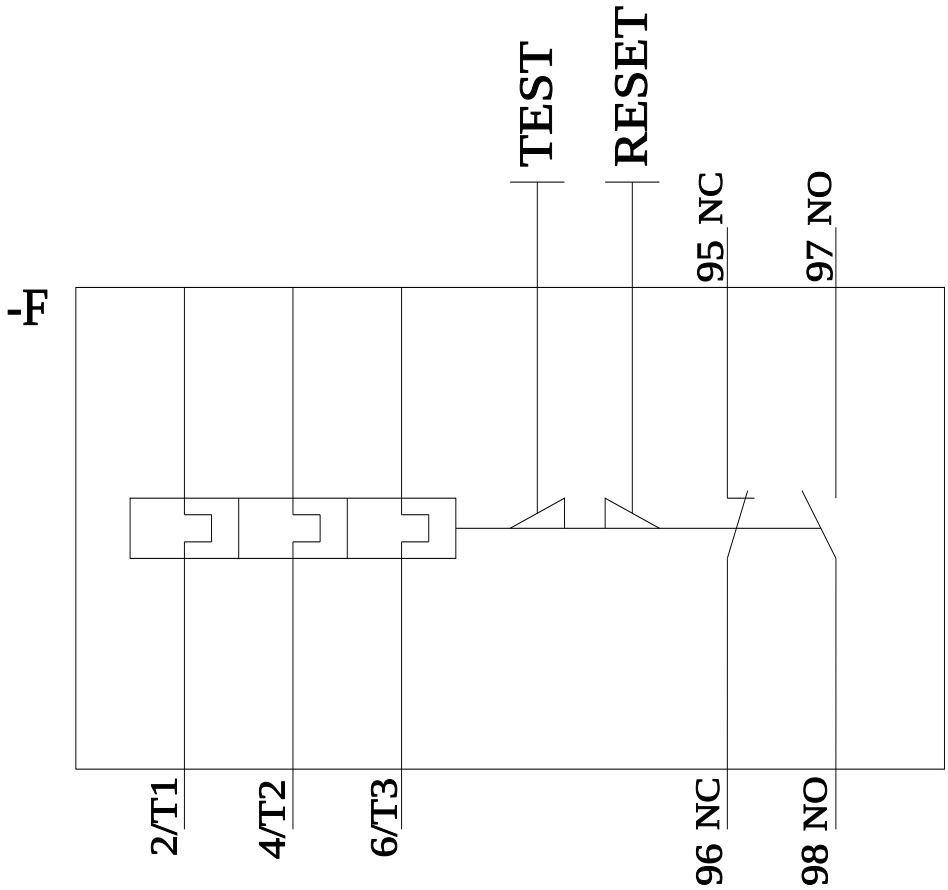
## Further information

**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=3RB3016-2TE0
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-2TE0
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-2TE0
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-2TE0&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-2TE0/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3016-2TE0&objecttype=14&gridview=view1



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