SIEMENS

Data sheet 3RB3016-2RE0



Overload relay 0.1...0.4 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 | 0.1 W | | |
| • per pole | 0.03 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/s ² ; 10 cycles | | |
| thermal current | 0.4 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 | 0.1 0.4 A | | |
| operating voltage | | | |
| • rated value | 690 V | | |
| at AC-3e rated value maximum | 690 V | | |

| operating frequency rated value | 50 60 Hz |
|---|------------------------------|
| operational current rated value | 0.4 A |
| operational current at AC-3e at 400 V rated value | 0.4 A |
| operating power | 0.04 |
| for 3-phase motors at 400 V at 50 Hz for AC motors at 500 V at 50 Hz | 0.04 0.09 kW 0.04 0.12 kW |
| for AC motors at 500 V at 50 Hz for AC motors at 690 V at 50 Hz | 0.04 0.12 kW |
| | 0.00 0.10 KW |
| Auxiliary circuit | |
| design of the auxiliary switch | integrated 1 |
| number of NC contacts for auxiliary contacts • 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 | 0.4 A |
| • at 600 V rated value | 0.4 A B600 / R300 |
| contact rating of auxiliary contacts according to UL | B000 / R300 |
| Short-circuit protection | |
| design of the fuse link • for short-circuit protection of the main circuit | |
| with type of coordination 1 required | gG: 35 A, RK5: 3 A |
| with type of coordination is required - with type of assignment 2 required | gG: 4 A |
| for short-circuit protection of the auxiliary switch | fuse gG: 6 A |
| required | ge. 67. |
| 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) |
| type of connectable conductor cross-sections | |
| 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 hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping





IRS









other

Confirmation

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=3RB3016-2RE0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-2RE0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

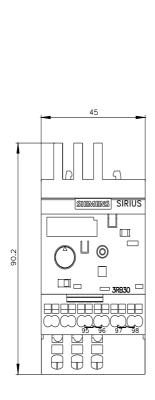
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-2RE0

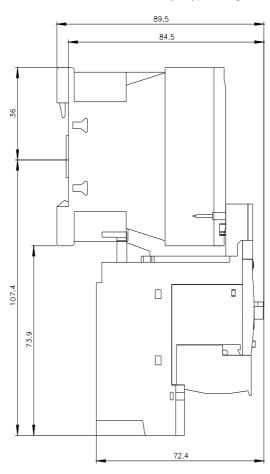
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-2RE0&lang=en

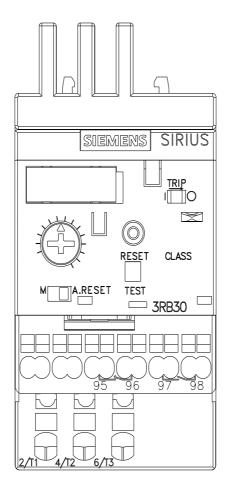
Characteristic: Tripping characteristics, I2t, Let-through current

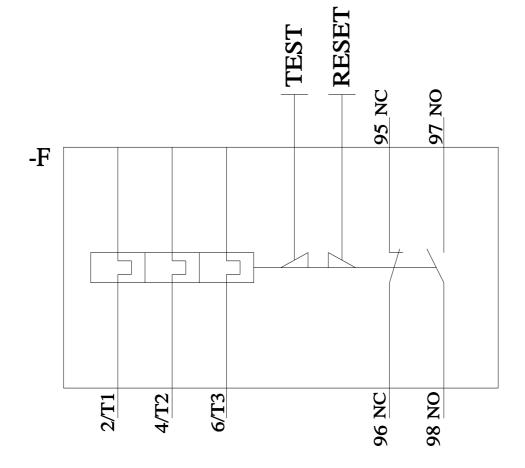
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-2RE0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3016-2RE0&objecttype=14&gridview=view1









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