



Overload relay 0.32...1.25 A Electronic For motor protection Size S00, Class 10E  
 Contactor mounting Main circuit: Spring-type terminal Auxiliary circuit: Spring-type  
 terminal Manual-Automatic-Reset

|  |  |
|--|--|
| <b>product brand name</b>  | SIRIUS   |
| <b>product designation</b>   | solid-state overload relay   |
| <b>product type designation</b>  | 3RB3   |
| <b>General technical data</b>  |  |
| <b>size of overload relay</b>  | S00  |
| <b>size of contactor can be combined company-specific</b>                                  | 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  |
| <b>surge voltage resistance rated value</b>  | 6 kV   |
| <b>maximum permissible voltage for protective separation</b>                               |  |
| • in networks with ungrounded star point between auxiliary and auxiliary circuit           | 300 V  |
| • in networks with grounded star point between auxiliary and auxiliary circuit             | 300 V  |
| • in networks with ungrounded star point between main and auxiliary circuit                | 600 V  |
| • in networks with grounded star point between main and auxiliary circuit                  | 690 V  |
| <b>shock resistance</b>  | 15g / 11 ms  |
| • according to IEC 60068-2-27  | 15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 9g / 11 ms |
| <b>thermal current</b>   | 1.25 A   |
| <b>reference code according to IEC 81346-2</b>   | F  |
| <b>Substance Prohibition (Date)</b>  | 10/01/2009   |
| <b>SVHC substance name</b>   | Lead monoxide (lead oxide) - 1317-36-8                                   |
| <b>Ambient conditions</b>  |  |
| installation altitude at height above sea level maximum                                    | 2 000 m  |
| <b>ambient temperature</b>   |  |
| • during operation   | -25 ... +60 °C   |
| • during storage   | -40 ... +80 °C   |
| • during transport   | -40 ... +80 °C   |
| <b>temperature compensation</b>  | -25 ... +60 °C   |
| relative humidity during operation   | 10 ... 95 %  |
| <b>Main circuit</b>  |  |
| <b>number of poles for main current circuit</b>  | 3  |
| <b>adjustable current response value current of the current-dependent overload release</b> | 0.32 ... 1.25 A  |
| <b>operating voltage</b>   |  |
| • rated value  | 690 V  |
| • at AC-3e rated value maximum   | 690 V  |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz   |

|   |                                    |
|---|------------------------------------|
| <b>operational current rated value</b>  | 1.25 A                             |
| operational current at AC-3e at 400 V rated value                             | 1.25 A                             |
| <b>operating power</b>  |                                    |
| • for 3-phase motors at 400 V at 50 Hz  | 0.12 ... 0.37 kW                   |
| • for AC motors at 500 V at 50 Hz   | 0.12 ... 0.55 kW                   |
| • for AC motors at 690 V at 50 Hz   | 0.18 ... 0.75 kW                   |
| <b>Auxiliary circuit</b>  |                                    |
| <b>design of the auxiliary switch</b>   | integrated                         |
| <b>number of NC contacts for auxiliary contacts</b>                           | 1                                  |
| • note  | for contactor disconnection        |
| <b>number of NO contacts for auxiliary contacts</b>                           | 1                                  |
| • note  | for message "tripped"              |
| number of CO contacts for auxiliary contacts                                  | 0                                  |
| <b>operational current of auxiliary contacts at AC-15</b>                     |                                    |
| • 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                                |
| <b>operational current of auxiliary contacts at DC-13</b>                     |                                    |
| • 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                             |
| <b>Protective and monitoring functions</b>                                    |                                    |
| <b>trip class</b>   | CLASS 10E                          |
| <b>design of the overload release</b>   | electronic                         |
| <b>UL/CSA ratings</b>   |                                    |
| <b>full-load current (FLA) for 3-phase AC motor</b>                           |                                    |
| • at 480 V rated value  | 1.25 A                             |
| • at 600 V rated value  | 1.25 A                             |
| <b>contact rating of auxiliary contacts according to UL</b>                   | B600 / R300                        |
| <b>Short-circuit protection</b>   |                                    |
| <b>design of the fuse link</b>  |                                    |
| • for short-circuit protection of the main circuit                            |                                    |
| — with type of coordination 1 required  | gG: 35 A, RK5: 6 A                 |
| — with type of assignment 2 required  | gG: 6 A                            |
| • for short-circuit protection of the auxiliary switch required               | fuse gG: 6 A                       |
| <b>Installation/ mounting/ dimensions</b>                                     |                                    |
| <b>mounting position</b>  | any                                |
| <b>fastening method</b>   | Contacteur mounting                |
| <b>height</b>   | 72 mm                              |
| <b>width</b>  | 45 mm                              |
| <b>depth</b>  | 90 mm                              |
| <b>Connections/ Terminals</b>   |                                    |
| <b>product component removable terminal for auxiliary and control circuit</b> | Yes                                |
| <b>type of electrical connection</b>  |                                    |
| • for main current circuit  | spring-loaded terminals            |
| • for auxiliary and control circuit   | spring-loaded terminals            |
| <b>arrangement of electrical connectors for main current circuit</b>          | Top and bottom                     |
| type of connectable conductor cross-sections for main contacts                |                                    |
| • solid   | 1x (0.5 ... 4 mm <sup>2</sup> )    |
| • solid or stranded   | 1x (0.5 ... 4 mm <sup>2</sup> )    |
| • finely stranded with core end processing                                    | 1x (0.5 ... 2.5 mm <sup>2</sup> )  |
| • finely stranded without core end processing                                 | 1x (0.5 ... 2.5 mm <sup>2</sup> )  |
| <b>type of connectable conductor cross-sections</b>                           |                                    |
| • for auxiliary contacts  |                                    |
| — solid   | 2x (0.25 ... 1.5 mm <sup>2</sup> ) |

|   |                                    |
|---|------------------------------------|
| — solid or stranded                           | 2x (0,25 ... 1,5 mm <sup>2</sup> ) |
| — finely stranded with core end processing    | 2x (0.25 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing | 2x (0.25 ... 1.5 mm <sup>2</sup> ) |
| • for AWG cables for auxiliary contacts       | 1x (24 ... 16), 2x (24 ... 16)     |
| <b>design of screwdriver shaft</b>            | Diameter 5 to 6 mm                 |
| <b>size of the screwdriver tip</b>            | Pozidriv PZ 2                      |

|  |  |
|--|--|
| <b>Electrical Safety</b>                                       |  |
| <b>protection class IP on the front according to IEC 60529</b> | IP20   |
| <b>touch protection on the front according to IEC 60529</b>    | finger-safe, for vertical contact from the front |

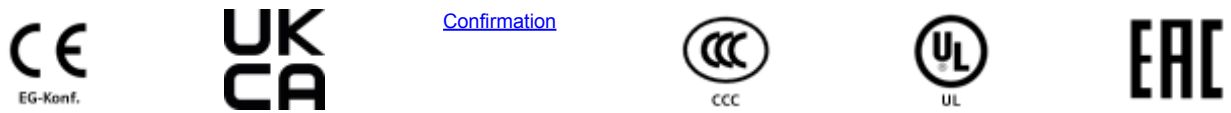
|  |    |
|--|----|
| <b>Communication/ Protocol</b>                             |    |
| <b>type of voltage supply via input/output link master</b> | No |

|   |   |
|---|---|
| <b>Electromagnetic compatibility</b>  |   |
| <b>conducted interference</b>   |   |
| <ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul> | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3<br>2 kV (line to earth) corresponds to degree of severity 3<br>1 kV (line to line) corresponds to degree of severity 3<br><br>10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz |
| <b>field-based interference according to IEC 61000-4-3</b>  | 10 V/m  |
| <b>electrostatic discharge according to IEC 61000-4-2</b>   | 6 kV contact discharge / 8 kV air discharge   |

|                                      |              |
|--------------------------------------|--------------|
| <b>Display</b>                       |              |
| display version for switching status | Slide switch |

**Approvals Certificates**

**General Product Approval**



|            |                                       |                          |                          |
|------------|---------------------------------------|--------------------------|--------------------------|
| <b>EMV</b> | <b>For use in hazardous locations</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|------------|---------------------------------------|--------------------------|--------------------------|



|                          |              |
|--------------------------|--------------|
| <b>Marine / Shipping</b> | <b>other</b> |
|--------------------------|--------------|



**Environment**

[Environmental Confirmations](#)

**Further information**

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=3RB3016-1NE0>  
 Cax online generator  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-1NE0>  
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1NE0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

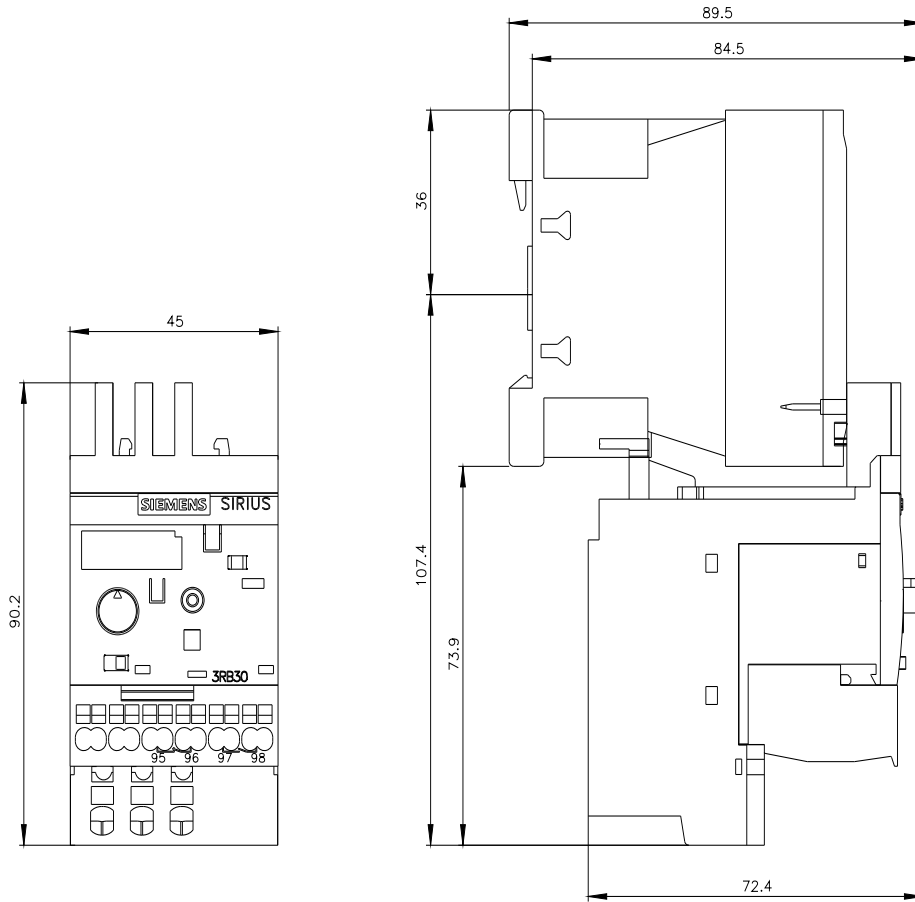
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3016-1NE0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-1NE0&lang=en)

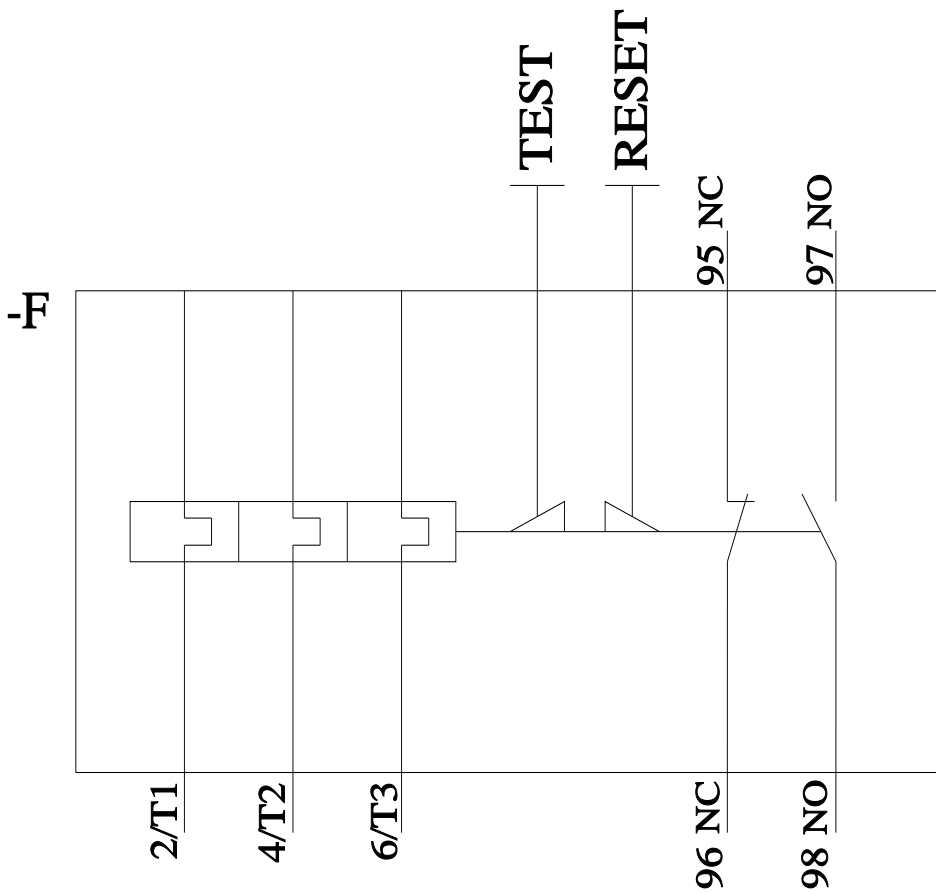
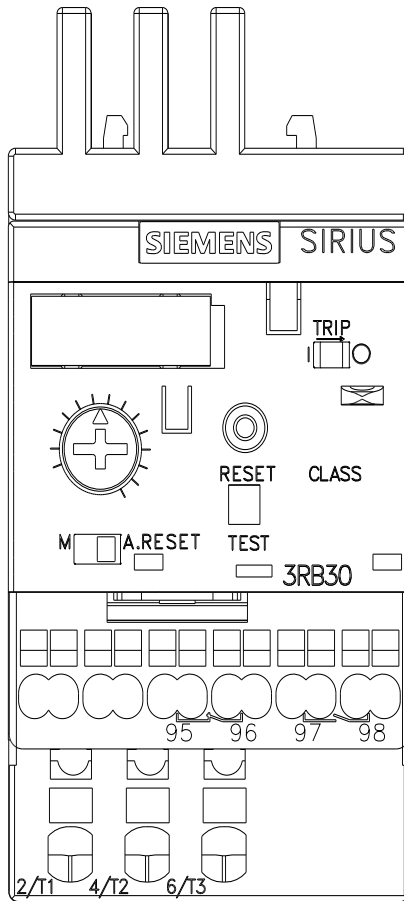
Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1NE0/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3016-1NE0&objecttype=14&gridview=view1>





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