



Overload relay 6...25 A Electronic For motor protection Size S0, Class 10E  
 Contactor mounting Main circuit: Screw 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                                                                                                                                                                                                             | S0                                                                       |
| size of contactor can be combined company-specific                                                                                                                                                                                 | S0                                                                       |
| power loss [W] for rated value of the current at AC in hot operating state                                                                                                                                                         | 1.2 W                                                                    |
| <ul style="list-style-type: none"> <li>per pole</li> </ul>                                                                                                                                                                         | 0.4 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                                                                                                                                                |                                                                          |
| <ul style="list-style-type: none"> <li>between auxiliary and auxiliary circuit</li> <li>between auxiliary and auxiliary circuit</li> <li>between main and auxiliary circuit</li> <li>between main and auxiliary circuit</li> </ul> | 300 V<br>300 V<br>600 V<br>690 V                                         |
| shock resistance                                                                                                                                                                                                                   | 15g / 11 ms                                                              |
| <ul style="list-style-type: none"> <li>according to IEC 60068-2-27</li> </ul>                                                                                                                                                      | 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 <sup>2</sup> ; 10 cycles                 |
| thermal current                                                                                                                                                                                                                    | 25 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 Prohibition (Date)                                                                                                                                                                                                       | 10/01/2009                                                               |

### Ambient conditions

|                                                                                                                      |                                                    |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| installation altitude at height above sea level maximum                                                              | 2 000 m                                            |
| ambient temperature                                                                                                  |                                                    |
| <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul> | -25 ... +60 °C<br>-40 ... +80 °C<br>-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                 | 6 ... 25 A     |
| operating voltage                                                                                   |                |
| <ul style="list-style-type: none"> <li>rated value</li> <li>at AC-3e rated value maximum</li> </ul> | 690 V<br>690 V |

|                                                                               |                                                                                      |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>operating frequency rated value</b>                                        | 50 ... 60 Hz                                                                         |
| <b>operational current rated value</b>                                        | 25 A                                                                                 |
| operational current at AC-3e at 400 V rated value                             | 25 A                                                                                 |
| <b>operating power</b>                                                        |                                                                                      |
| • for 3-phase motors at 400 V at 50 Hz                                        | 3 ... 11 kW                                                                          |
| • for AC motors at 500 V at 50 Hz                                             | 4 ... 15 kW                                                                          |
| • for AC motors at 690 V at 50 Hz                                             | 5.5 ... 22 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                                                        | 25 A                                                                                 |
| • at 600 V rated value                                                        | 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: 125 A, RK5: 100 A                                                                |
| — with type of assignment 2 required                                          | gG: 63 A, J: 100 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>                                                       | Contactor mounting                                                                   |
| <b>height</b>                                                                 | 87 mm                                                                                |
| <b>width</b>                                                                  | 45 mm                                                                                |
| <b>depth</b>                                                                  | 84 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                                                    | screw-type terminals                                                                 |
| • for auxiliary and control circuit                                           | screw-type terminals                                                                 |
| <b>arrangement of electrical connectors for main current circuit</b>          | Top and bottom                                                                       |
| <b>type of connectable conductor cross-sections</b>                           |                                                                                      |
| • for main contacts                                                           |                                                                                      |
| — solid                                                                       | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )                    |
| — stranded                                                                    | 2x 10 mm <sup>2</sup>                                                                |
| — solid or stranded                                                           | 1x (1 ... 10 mm <sup>2</sup> ), 2x (1 ... 10 mm <sup>2</sup> )                       |
| — finely stranded with core end processing                                    | 1x (1 ... 6 mm <sup>2</sup> ), 2 x (1 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> |
| • at AWG cables for main contacts                                             | 1x (16 ... 8), 2x (16 ... 8)                                                         |
| <b>type of connectable conductor cross-sections</b>                           |                                                                                      |

|                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG cables for auxiliary contacts</li> </ul> | 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )<br>1x (20 ... 14), 2x (20 ... 14) |
| <b>tightening torque</b>                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>                                                                                                            | 2 ... 2.5 N·m<br>0.8 ... 1.2 N·m                                                                                                                                                                                                                   |
| <b>design of screwdriver shaft</b>                                                                                                                                                                                                                                     | Diameter 5 to 6 mm                                                                                                                                                                                                                                 |
| <b>size of the screwdriver tip</b>                                                                                                                                                                                                                                     | Pozidriv PZ 2                                                                                                                                                                                                                                      |
| <b>design of the thread of the connection screw</b>                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• of the auxiliary and control contacts</li> </ul>                                                                                                                                                 | M4<br>M3                                                                                                                                                                                                                                           |

#### Safety related data

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| <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 |

#### Communication/ Protocol

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

#### Electromagnetic compatibility

|                                                                                                                 |                                                                             |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>conducted interference</b>                                                                                   |                                                                             |
| <ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> </ul>                     | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 |
| <ul style="list-style-type: none"> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> </ul>     | 2 kV (line to earth) corresponds to degree of severity 3                    |
| <ul style="list-style-type: none"> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul> | 1 kV (line to line) corresponds to degree of severity 3                     |
| <ul style="list-style-type: none"> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul>  | 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                                 |

#### Display

|                                      |              |
|--------------------------------------|--------------|
| display version for switching status | Slide switch |
|--------------------------------------|--------------|

#### Certificates/ approvals

|                                 |            |
|---------------------------------|------------|
| <b>General Product Approval</b> | <b>EMC</b> |
|---------------------------------|------------|



[Confirmation](#)



|                                       |                                  |                          |                          |
|---------------------------------------|----------------------------------|--------------------------|--------------------------|
| <b>For use in hazardous locations</b> | <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|---------------------------------------|----------------------------------|--------------------------|--------------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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



[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=3RB3026-1QB0>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3026-1QB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3026-1QB0>

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

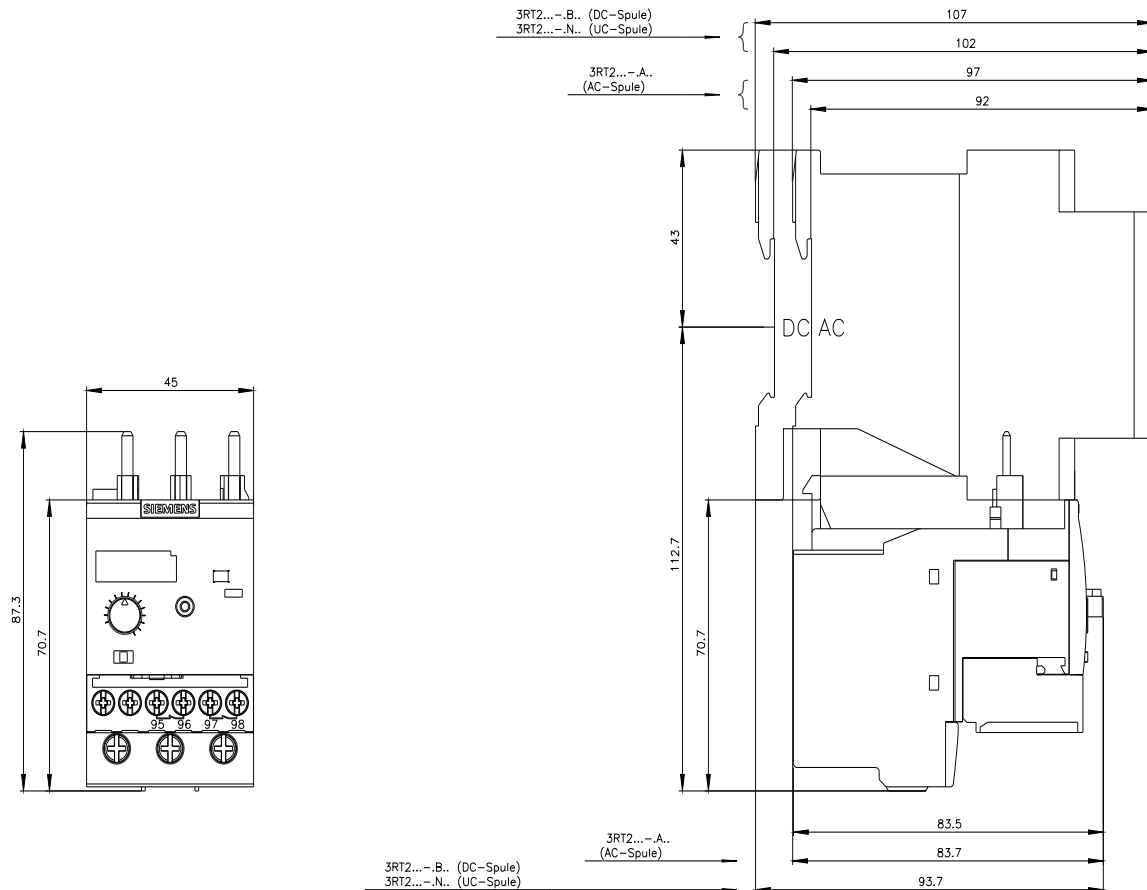
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3026-1QB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3026-1QB0&lang=en)

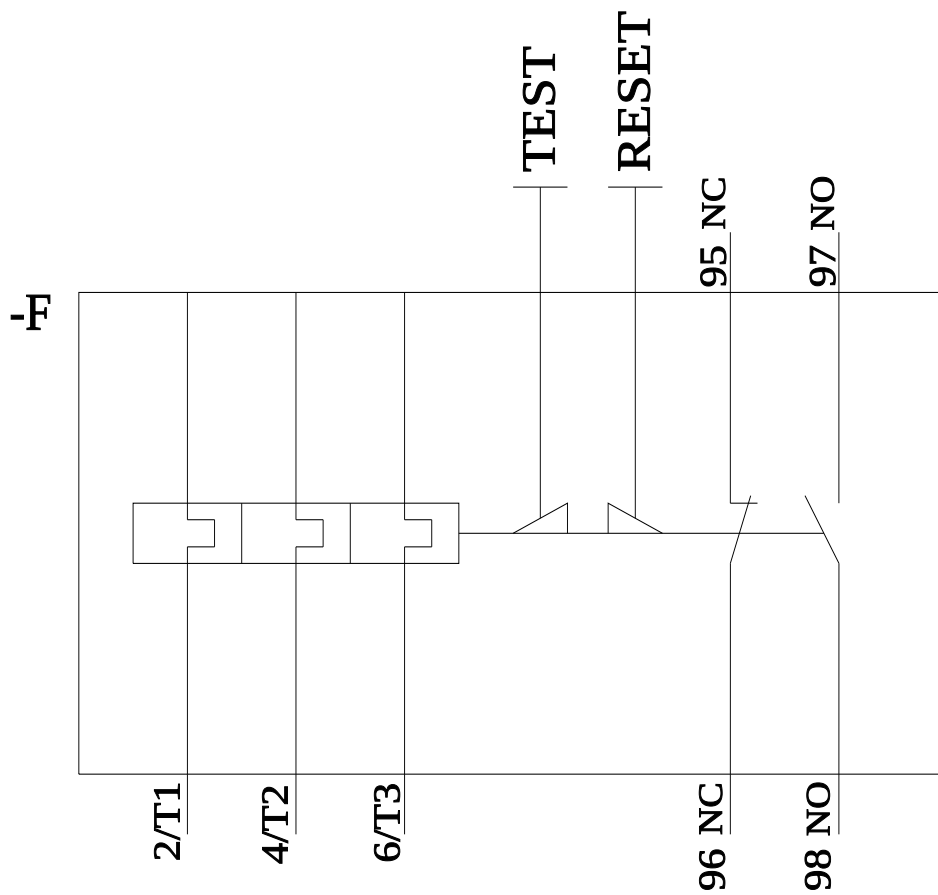
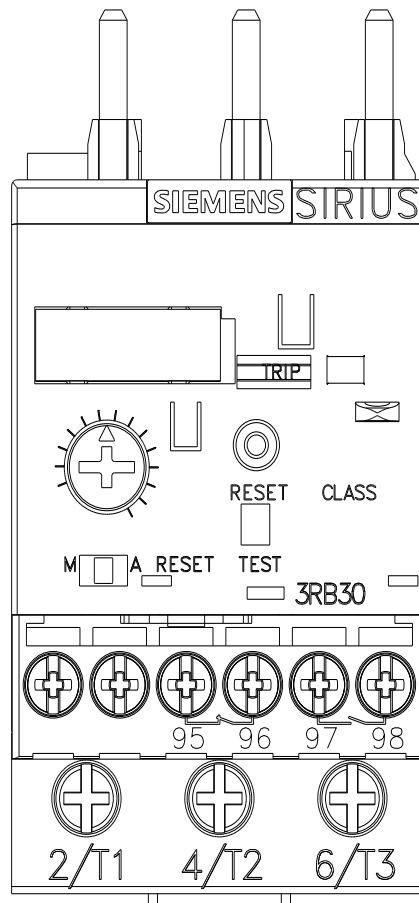
**Characteristic: Tripping characteristics,  $I^2t$ , Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3026-1QB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3026-1QB0&objecttype=14&gridview=view1>





last modified:

2/9/2022