



Overload relay 32...115 A Electronic For motor protection Size S3, Class 10E  
 Contactor mounting Main circuit: Screw 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>  | S3  |
| <b>size of contactor can be combined company-specific</b>                        | S3  |
| power loss [W] for rated value of the current at AC in hot operating state       | 4.6 W   |
| • per pole   | 1.53 W  |
| insulation voltage with degree of pollution 3 at AC rated value                  | 1 000 V   |
| <b>surge voltage resistance rated value</b>                                      | 8 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>  | 8g / 11 ms  |
| • according to IEC 60068-2-27  | 15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms  |
| <b>vibration resistance</b>  | 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s <sup>2</sup> ; 10 cycles  |
| <b>thermal current</b>   | 115 A   |
| <b>recovery time after overload trip</b>   |   |
| • with automatic reset typical   | 3 min   |
| • with remote-reset  | 0 min   |
| • with manual reset  | 0 min   |
| <b>reference code according to IEC 81346-2</b>                                   | F   |
| <b>Substance Prohibition (Date)</b>  | 03/01/2017  |
| <b>SVHC substance name</b>   | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 |
| <b>Weight</b>  | 225 g   |
| <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 %   |

| Main circuit  |   |
|---|---|
| number of poles for main current circuit  | 3   |
| adjustable current response value current of the current-dependent overload release   | 32 ... 115 A                                    |
| operating voltage <ul style="list-style-type: none"> <li>rated value</li> <li>at AC-3e rated value maximum</li> </ul>   | 1 000 V<br>1 000 V                              |
| operating frequency rated value   | 50 ... 60 Hz                                    |
| operational current rated value   | 115 A   |
| operational current at AC-3e at 400 V rated value   | 115 A   |
| operating power <ul style="list-style-type: none"> <li>for 3-phase motors at 400 V at 50 Hz</li> <li>for AC motors at 500 V at 50 Hz</li> <li>for AC motors at 690 V at 50 Hz</li> </ul>  | 18.5 ... 55 kW<br>22 ... 75 kW<br>30 ... 90 kW  |
| Auxiliary circuit   |   |
| design of the auxiliary switch  | integrated                                      |
| number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> <li>note</li> </ul>   | 1<br>for contactor disconnection                |
| number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> <li>note</li> </ul>   | 1<br>for message "tripped"                      |
| number of CO contacts for auxiliary contacts  | 0   |
| operational current of auxiliary contacts at AC-15 <ul style="list-style-type: none"> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> </ul>  | 4 A<br>4 A<br>4 A<br>4 A<br>3 A                 |
| operational current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> <li>at 24 V</li> <li>at 60 V</li> <li>at 110 V</li> <li>at 125 V</li> <li>at 220 V</li> </ul>   | 2 A<br>0.55 A<br>0.3 A<br>0.3 A<br>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 <ul style="list-style-type: none"> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>   | 115 A<br>115 A                                  |
| contact rating of auxiliary contacts according to UL  | B600 / R300                                     |
| Short-circuit protection  |   |
| design of the fuse link <ul style="list-style-type: none"> <li>for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>with type of coordination 1 required</li> <li>with type of coordination 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</li> </ul> | gG: 315 A<br>gG: 315 A<br>fuse gG: 6 A          |
| Installation/ mounting/ dimensions  |   |
| mounting position   | any   |
| fastening method  | Contactors mounting                             |
| 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 <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>   | screw-type terminals<br>spring-loaded terminals |
| arrangement of electrical connectors for main current circuit   | Top and bottom                                  |

|  |  |  |
|--|--|--|
| type of connectable conductor cross-sections for main contacts   | <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul> | <ul style="list-style-type: none"> <li>2x (2.5 ... 16 mm<sup>2</sup>)</li> <li>2x 16 mm<sup>2</sup></li> <li>1x (2,5 ... 70 mm<sup>2</sup>), 2x (2,5 ... 50 mm<sup>2</sup>)</li> <li>1x (2,5 ... 50 mm<sup>2</sup>), 2x (2,5 ... 35 mm<sup>2</sup>)</li> </ul> |
| <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> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul> |  | <ul style="list-style-type: none"> <li>2x (0.25 ... 1.5 mm<sup>2</sup>)</li> <li>2x (0,25 ... 1,5 mm<sup>2</sup>)</li> <li>2x (0.25 ... 1.5 mm<sup>2</sup>)</li> <li>2x (0.25 ... 1.5 mm<sup>2</sup>)</li> <li>2x (24 ... 16)</li> </ul>                       |
| <b>tightening torque</b>   |  |  |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>  |  | 4.5 ... 6 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> </ul>  |  | M6   |

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

**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> <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> | <ul style="list-style-type: none"> <li>2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3</li> <li>2 kV (line to earth) corresponds to degree of severity 3</li> <li>1 kV (line to line) corresponds to degree of severity 3</li> <li>10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz</li> </ul> |
| <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 |
|--------------------------------------|--------------|

**Approvals Certificates**

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



|                                       |                          |                             |
|---------------------------------------|--------------------------|-----------------------------|
| <b>For use in hazardous locations</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|---------------------------------------|--------------------------|-----------------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



|                             |              |                    |
|-----------------------------|--------------|--------------------|
| <b>Maritime application</b> | <b>other</b> | <b>Environment</b> |
|-----------------------------|--------------|--------------------|



[Confirmation](#)

[Environmental Confirmations](#)

**Further information**

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RB3046-1XD0>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3046-1XD0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1XD0>

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

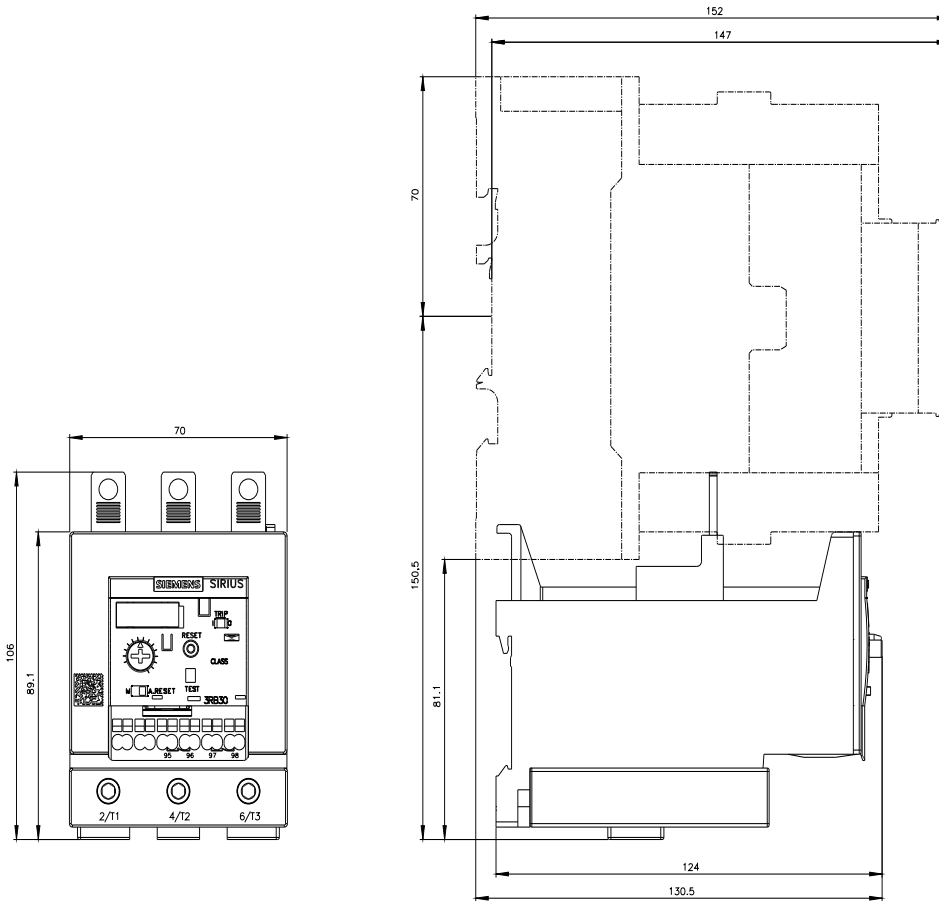
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3046-1XD0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3046-1XD0&lang=en)

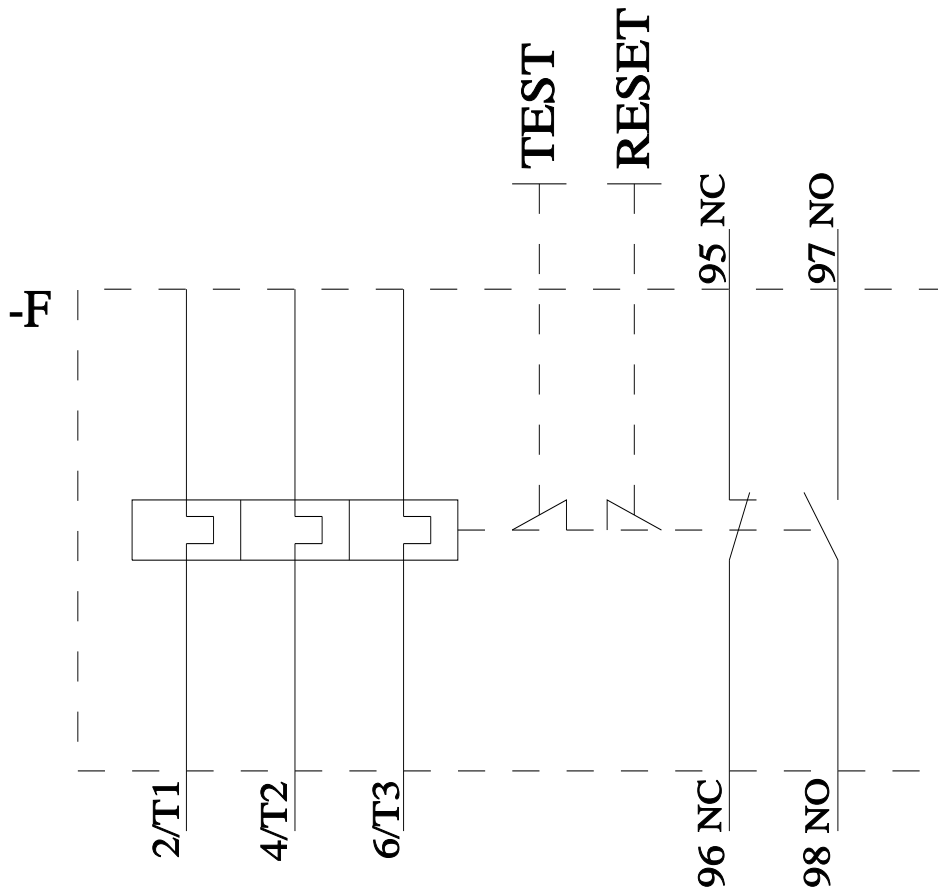
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1XD0/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3046-1XD0&objecttype=14&gridview=view1>





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