



Overload relay 80...100 A For motor protection Size S3, Class 10 Contactor mounting Main circuit: Screw terminal Auxiliary circuit: Screw terminal Manual-Automatic-Reset !!! Phased-out product !!! Successor is SIRIUS 3RU2 Preferred successor type is >>3RU2146-4MB0<<

|  |                        |
|--|------------------------|
| <b>product brand name</b>  | SIRIUS                 |
| <b>product designation</b>   | thermal overload relay |
| <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                 | 21 W                   |
| • per pole   | 7 W                    |
| insulation voltage with degree of pollution 3 at AC rated value                            | 1 000 V                |
| <b>surge voltage resistance rated value</b>  | 8 kV                   |
| protection class IP on the front   | IP20                   |
| <b>shock resistance</b>  | 8g / 10 ms             |
| <b>type of protection</b>  | DMT 98 ATEX G 001      |
| <b>reference code according to IEC 81346-2</b>   | F                      |
| <b>Substance Prohibitance (Date)</b>   | 07/01/2006             |
| <b>Ambient conditions</b>  |                        |
| installation altitude at height above sea level maximum                                    | 2 000 m                |
| <b>ambient temperature</b>   |                        |
| • during operation   | -20 ... +70 °C         |
| • during storage   | -55 ... +80 °C         |
| • during transport   | -55 ... +80 °C         |
| relative humidity during operation maximum   | 100 %                  |
| <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> | 80 ... 100 A           |
| <b>Auxiliary circuit</b>   |                        |
| <b>number of NC contacts for auxiliary contacts</b>  | 1                      |
| <b>number of NO contacts for auxiliary contacts</b>  | 1                      |
| number of CO contacts for auxiliary contacts   | 0                      |
| <b>operational current of auxiliary contacts at AC-15</b>                                  |                        |
| • at 24 V  | 3 A                    |
| • at 110 V   | 3 A                    |
| • at 120 V   | 3 A                    |
| • at 125 V   | 3 A                    |
| • at 230 V   | 2 A                    |
| • at 400 V   | 1 A                    |
| <b>operational current of auxiliary contacts at DC-13</b>                                  |                        |
| • at 24 V  | 1 A                    |
| • at 110 V   | 0.22 A                 |
| • at 125 V   | 0.22 A                 |

|  |  |
|--|--|
| • at 220 V   | 0.11 A   |
| <b>Protective and monitoring functions</b>   |  |
| <b>trip class</b>  | CLASS 10   |
| <b>Short-circuit protection</b>  |  |
| <b>design of the fuse link</b>   |  |
| <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 assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>  | gG: 250 A<br>gG: 200 A<br>fuse gL/gG: 6 A, quick: 10 A   |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>mounting position</b>   | with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back  |
| <b>fastening method</b>  | Contactormounting  |
| <b>height</b>  | 120 mm   |
| <b>width</b>   | 70 mm  |
| <b>depth</b>   | 140 mm   |
| <b>required spacing</b>  |  |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>6 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>6 mm   |
| <b>Connections/ Terminals</b>  |  |
| <b>product component removable terminal for auxiliary and control circuit</b>  | No   |
| <b>type of electrical connection</b>   |  |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>  | screw-type terminals<br>screw-type terminals   |
| <b>type of connectable conductor cross-sections for main contacts</b>  |  |
| <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> </ul>  | 2x (2.5 ... 16 mm <sup>2</sup> )<br>2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup><br>2x (2.5 ... 35 mm <sup>2</sup> ), 2.5 ... 50 mm <sup>2</sup>                   |
| <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>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>   | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 16), 2x (18 ... 14) |
| <b>Electrical Safety</b>   |  |
| <b>touch protection against electrical shock</b>   | finger-safe  |
| <b>Approvals Certificates</b>  |  |
| <b>General Product Approval</b>  | <b>For use in hazardous locations</b>  |



[Confirmation](#)



|                                |                   |                   |       |
|--------------------------------|-------------------|-------------------|-------|
| For use in hazardous locations | Test Certificates | Marine / Shipping | other |
|--------------------------------|-------------------|-------------------|-------|



[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

|       |         |             |
|-------|---------|-------------|
| other | Railway | Environment |
|-------|---------|-------------|

[Miscellaneous](#)

[Special Test Certificate](#)

[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=3RU1146-4MB0>

**Cax online generator**

<http://support.automation.siemens.com/WWW/CAXorder/default.aspx?lang=en&mlfb=3RU1146-4MB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU1146-4MB0>

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

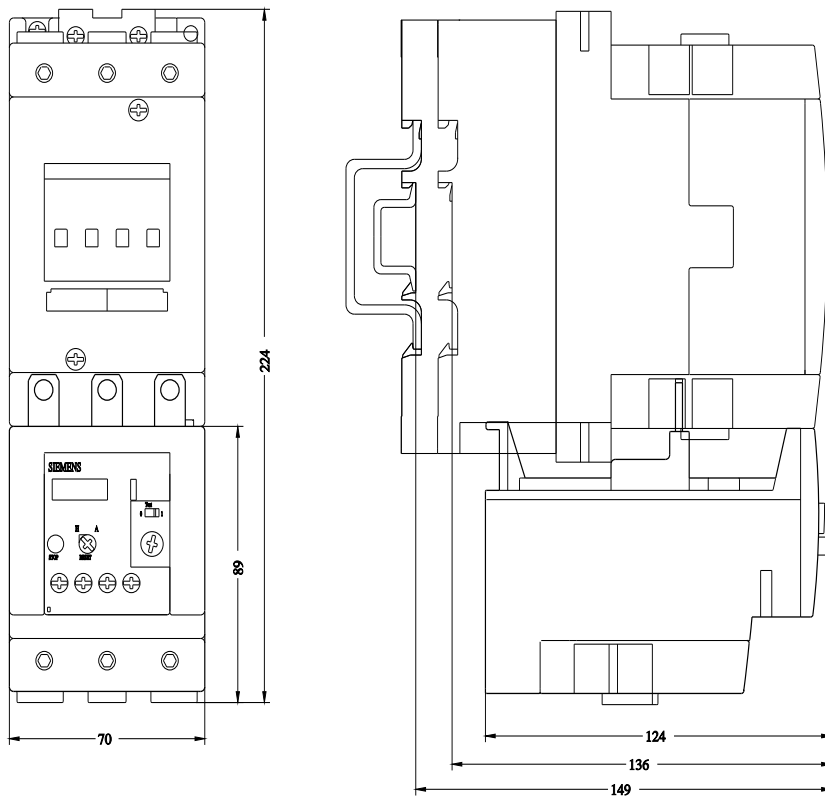
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU1146-4MB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU1146-4MB0&lang=en)

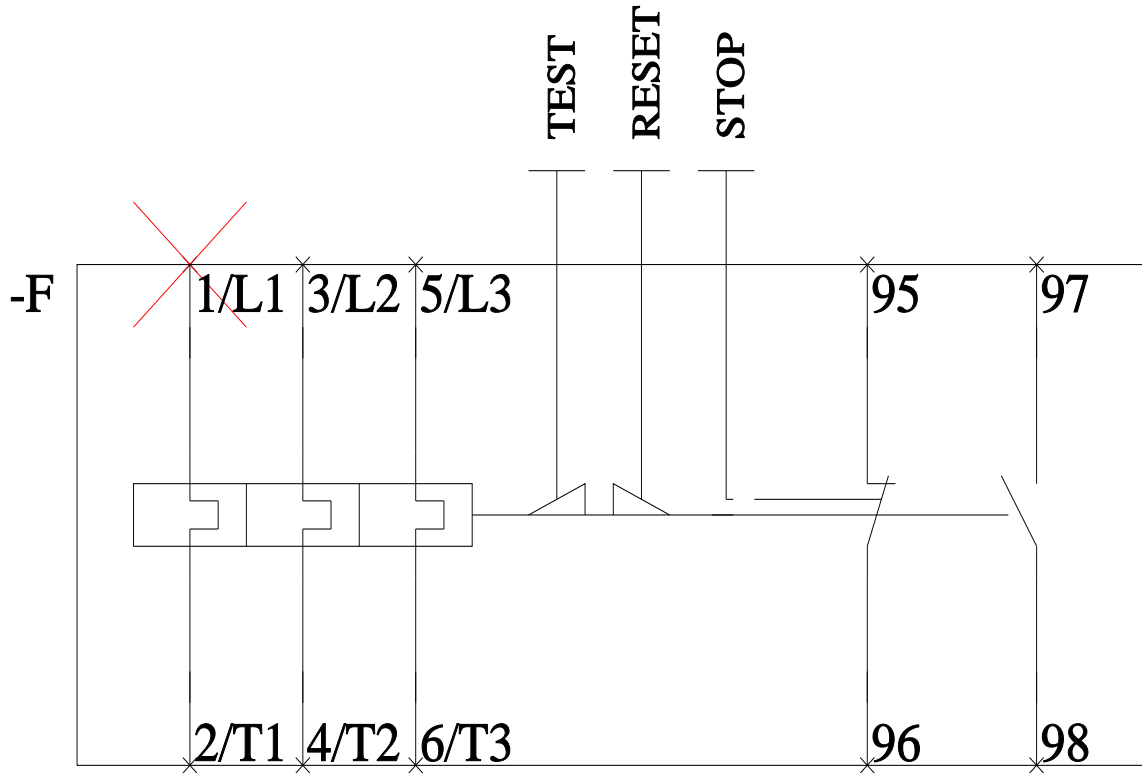
**Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RU1146-4MB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU1146-4MB0&objecttype=14&gridview=view1>





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