



Overload relay 2.8...4.0 A Thermal For motor protection Size S0, Class 10  
 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

|  |                        |
|--|------------------------|
| product brand name   | SIRIUS                 |
| product designation  | thermal overload relay |
| product type designation   | 3RU2                   |
| <b>General technical data</b>  |                        |
| 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       | 5.7 W                  |
| • per pole   | 1.9 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 protective separation                            |                        |
| • in networks with ungrounded star point between auxiliary and auxiliary circuit | 440 V                  |
| • in networks with grounded star point between auxiliary and auxiliary circuit   | 440 V                  |
| • in networks with ungrounded star point between main and auxiliary circuit      | 440 V                  |
| • in networks with grounded star point between main and auxiliary circuit        | 440 V                  |
| shock resistance according to IEC 60068-2-27                                     | 8g / 11 ms             |
| reference code according to IEC 81346-2  | F                      |
| Substance Prohibitance (Date)  | 10/01/2009             |
| SVHC substance name  | Lead - 7439-92-1       |
| Weight   | 0.183 kg               |
| <b>Ambient conditions</b>  |                        |
| installation altitude at height above sea level maximum                          | 2 000 m                |
| ambient temperature  |                        |
| • during operation   | -40 ... +70 °C         |
| • during storage   | -55 ... +80 °C         |
| • during transport   | -55 ... +80 °C         |
| temperature compensation   | -40 ... +60 °C         |
| relative humidity during operation   | 10 ... 95 %            |
| <b>Environmental footprint</b>   |                        |
| global warming potential [CO2 eq] total  | 56.6 kg                |
| global warming potential [CO2 eq] during manufacturing                           | 1.21 kg                |
| global warming potential [CO2 eq] during sales                                   | 0.047 kg               |
| global warming potential [CO2 eq] during operation                               | 55.4 kg                |
| global warming potential [CO2 eq] after end of life                              | -0.027 kg              |
| <b>Main circuit</b>  |                        |
| number of poles for main current circuit   | 3                      |
| adjustable current response value current of the current-                        | 2.8 ... 4 A            |

|   |                             |
|---|-----------------------------|
| <b>dependent overload release</b>   |                             |
| <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>  | 4 A                         |
| operational current at AC-3e at 400 V rated value                             | 4 A                         |
| <b>operating power</b>  |                             |
| • at AC-3   |                             |
| — at 400 V rated value  | 1.5 kW                      |
| — at 500 V rated value  | 2.2 kW                      |
| — at 690 V rated value  | 3 kW                        |
| • at AC-3e  |                             |
| — at 400 V rated value  | 1.5 kW                      |
| — at 500 V rated value  | 2.2 kW                      |
| — at 690 V rated value  | 3 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   | 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                         |
| • at 690 V  | 0.75 A                      |
| <b>operational current of auxiliary contacts at DC-13</b>                     |                             |
| • at 24 V   | 2 A                         |
| • at 60 V   | 0.3 A                       |
| • at 110 V  | 0.22 A                      |
| • at 125 V  | 0.22 A                      |
| • at 220 V  | 0.11 A                      |
| <b>contact rating of auxiliary contacts according to UL</b>                   | B600 / R300                 |
| <b>Protective and monitoring functions</b>                                    |                             |
| <b>trip class</b>   | CLASS 10                    |
| <b>design of the overload release</b>   | thermal                     |
| <b>UL/CSA ratings</b>   |                             |
| <b>full-load current (FLA) for 3-phase AC motor</b>                           |                             |
| • at 480 V rated value  | 4 A                         |
| • at 600 V rated value  | 4 A                         |
| <b>Short-circuit protection</b>   |                             |
| <b>design of the fuse link</b>  |                             |
| • for short-circuit protection of the auxiliary switch required               | fuse gG: 6 A, quick: 10 A   |
| <b>Installation/ mounting/ dimensions</b>                                     |                             |
| <b>mounting position</b>  | any                         |
| <b>fastening method</b>   | Contacteur mounting         |
| <b>height</b>   | 85 mm                       |
| <b>width</b>  | 45 mm                       |
| <b>depth</b>  | 85 mm                       |
| <b>Connections/ Terminals</b>   |                             |
| <b>product component removable terminal for auxiliary and control circuit</b> | No                          |
| <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</b>                  | Top and bottom              |

|  |   |
|--|---|
| <b>circuit</b>   |   |
| <b>type of connectable conductor cross-sections</b>  |   |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>for AWG cables for main contacts</li> </ul>           | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )<br>2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup><br>2x (16 ... 12), 2x (14 ... 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 or stranded</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>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 ... 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>failure rate [FIT] with low demand rate according to SN 31920</b>   | 50 FIT  |
| <b>MTTF with high demand rate</b>  | 2 280 a |
| <b>IEC 61508</b>   |         |
| <b>T1 value</b>  |         |
| <ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul> | 20 a    |

#### Electrical Safety

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

#### Display

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

#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



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



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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



[Miscellaneous](#)

|              |                |                    |
|--------------|----------------|--------------------|
| <b>other</b> | <b>Railway</b> | <b>Environment</b> |
|--------------|----------------|--------------------|

[Confirmation](#)

[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=3RU2126-1EB0>

[Cax online generator](#)

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2126-1EB0>

[http://support.datacenterdynamics.com/ViewSite.aspx?PageID=60&PageType=2](#)

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1EB0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2126-1EB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2126-1EB0&lang=en)

**Characteristic: Tripping characteristics,  $I_{\Delta t}$ , Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1EB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2126-1EB0&objecttype=14&gridview=view1>



