



Overload relay 0.45...0.63 A Thermal For motor protection Size S00, 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                   |
| General technical data                                                           |                        |
| size of overload relay                                                           | S00                    |
| size of contactor can be combined company-specific                               | S00                    |
| power loss [W] for rated value of the current at AC in hot operating state       | 4.8 W                  |
| • per pole                                                                       | 1.6 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       |
| Net Weight                                                                       | 0.157 kg               |
| Ambient conditions                                                               |                        |
| 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 %            |
| Environmental footprint                                                          |                        |
| Environmental Product Declaration(EPD)                                           | Yes                    |
| global warming potential [CO2 eq] total                                          | 39.9 kg                |
| global warming potential [CO2 eq] during manufacturing                           | 0.921 kg               |
| global warming potential [CO2 eq] during sales                                   | 0.039 kg               |
| global warming potential [CO2 eq] during operation                               | 39 kg                  |
| global warming potential [CO2 eq] after end of life                              | -0.015 kg              |

|                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Main circuit</b>                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                |
| number of poles for main current circuit                                                                                                                                                                                                                                                                                                                                            | 3                                                                                                                                                                                                                              |
| adjustable current response value current of the current-dependent overload release                                                                                                                                                                                                                                                                                                 | 0.45 ... 0.63 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                                                                                                                                                                                                                 |
| operating frequency rated value                                                                                                                                                                                                                                                                                                                                                     | 50 ... 60 Hz                                                                                                                                                                                                                   |
| operational current rated value                                                                                                                                                                                                                                                                                                                                                     | 0.63 A                                                                                                                                                                                                                         |
| operational current at AC-3e at 400 V rated value                                                                                                                                                                                                                                                                                                                                   | 0.63 A                                                                                                                                                                                                                         |
| operating power <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul> | 0.18 kW<br>0.18 kW<br>0.25 kW<br><br>0.18 kW<br>0.18 kW<br>0.25 kW                                                                                                                                                             |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                |
| 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> <li>• at 400 V</li> <li>• at 690 V</li> </ul>                                                                                                                                              | 3 A<br>3 A<br>3 A<br>3 A<br>2 A<br>1 A<br>0.75 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>0.3 A<br>0.22 A<br>0.22 A<br>0.11 A                                                                                                                                                                                     |
| contact rating of auxiliary contacts according to UL                                                                                                                                                                                                                                                                                                                                | B600 / R300                                                                                                                                                                                                                    |
| <b>Protective and monitoring functions</b>                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                |
| trip class                                                                                                                                                                                                                                                                                                                                                                          | CLASS 10                                                                                                                                                                                                                       |
| design of the overload release                                                                                                                                                                                                                                                                                                                                                      | thermal                                                                                                                                                                                                                        |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                |
| 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>                                                                                                                                                                                                                               | 0.6 A<br>0.6 A                                                                                                                                                                                                                 |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                |
| design of the fuse link <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                                                                           | fuse gG: 6 A, quick: 10 A                                                                                                                                                                                                      |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                |
| mounting position                                                                                                                                                                                                                                                                                                                                                                   | for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable; for more details see manual |
| fastening method                                                                                                                                                                                                                                                                                                                                                                    | Contactor mounting                                                                                                                                                                                                             |
| height                                                                                                                                                                                                                                                                                                                                                                              | 76 mm                                                                                                                                                                                                                          |
| width                                                                                                                                                                                                                                                                                                                                                                               | 45 mm                                                                                                                                                                                                                          |
| depth                                                                                                                                                                                                                                                                                                                                                                               | 70 mm                                                                                                                                                                                                                          |

| Connections/ Terminals                                                 |                                                       |
|------------------------------------------------------------------------|-------------------------------------------------------|
| product component removable terminal for auxiliary and control circuit | No                                                    |
| type of electrical connection                                          |                                                       |
| • for main current circuit                                             | screw-type terminals                                  |
| • for auxiliary and control circuit                                    | screw-type terminals                                  |
| arrangement of electrical connectors for main current circuit          | Top and bottom                                        |
| type of connectable conductor cross-sections                           |                                                       |
| • for main contacts                                                    |                                                       |
| — solid or stranded                                                    | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm² |
| — finely stranded with core end processing                             | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)           |
| • for AWG cables for main contacts                                     | 2x (20 ... 16), 2x (18 ... 14), 2x 12                 |
| type of connectable conductor cross-sections                           |                                                       |
| • for auxiliary contacts                                               |                                                       |
| — solid or stranded                                                    | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)           |
| — finely stranded with core end processing                             | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)           |
| • for AWG cables for auxiliary contacts                                | 2x (20 ... 16), 2x (18 ... 14)                        |
| tightening torque                                                      |                                                       |
| • for main contacts with screw-type terminals                          | 0.8 ... 1.2 N·m                                       |
| • for auxiliary contacts with screw-type terminals                     | 0.8 ... 1.2 N·m                                       |
| design of screwdriver shaft                                            | Diameter 5 ... 6 mm                                   |
| size of the screwdriver tip                                            | Pozidriv PZ 2                                         |
| design of the thread of the connection screw                           |                                                       |
| • for main contacts                                                    | M3                                                    |
| • of the auxiliary and control contacts                                | M3                                                    |
| Safety related data                                                    |                                                       |
| failure rate [FIT] with low demand rate according to SN 31920          | 50 FIT                                                |
| MTTF with high demand rate                                             | 2 280 a                                               |
| IEC 61508                                                              |                                                       |
| T1 value                                                               |                                                       |
| • for proof test interval or service life according to IEC 61508       | 20 a                                                  |
| Electrical Safety                                                      |                                                       |
| protection class IP on the front according to IEC 60529                | IP20                                                  |
| touch protection on the front according to IEC 60529                   | finger-safe, for vertical contact from the front      |
| Display                                                                |                                                       |
| display version for switching status                                   | Slide switch                                          |
| Approvals Certificates                                                 |                                                       |
| General Product Approval                                               |                                                       |



| For use in hazardous locations | Test Certificates | Maritime application |
|--------------------------------|-------------------|----------------------|
|--------------------------------|-------------------|----------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| Maritime application | other |
|----------------------|-------|
|----------------------|-------|



[Miscellaneous](#)

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

[Confirmation](#)

[Special Test Certificate](#)



[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=3RU2116-0GB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0GB0>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2116-0GB0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0GB0&lang=en)

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0GB0>

##### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>)



