

Overload relay 4.5...6.3 A 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                   |
| General technical data                                                         |                        |
| Size of overload relay                                                         | S0                     |
| Size of contactor can be combined company-specific                             | S0                     |
| Power loss [W] total typical                                                   | 5.7 W                  |
| Insulation voltage with degree of pollution 3 rated value                      | 690 V                  |
| Surge voltage resistance rated value                                           | 6 kV                   |
| maximum permissible voltage for safe isolation                                 |                        |
| • in networks with grounded 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 grounded star point between main and auxiliary circuit      | 440 V                  |
| • in networks with grounded star point between main and auxiliary circuit      | 440 V                  |
| Protection class IP                                                            |                        |

|                                                                                             |                   |
|---------------------------------------------------------------------------------------------|-------------------|
| <ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul> | IP20<br>IP20      |
| <b>Shock resistance</b>                                                                     |                   |
| <ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>                  | 8g / 11 ms        |
| <b>Type of protection</b>                                                                   | Ex e              |
| Certificate of suitability relating to ATEX                                                 | DMT 98 ATEX G 001 |
| <b>Protection against electrical shock</b>                                                  | finger-safe       |
| <b>Reference code acc. to DIN EN 81346-2</b>                                                | F                 |

#### Ambient conditions

|                                                                                                                            |                                                    |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Installation altitude at height above sea level</b>                                                                     |                                                    |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                                                                | 2 000 m                                            |
| <b>Ambient temperature</b>                                                                                                 |                                                    |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul> | -40 ... +70 °C<br>-55 ... +80 °C<br>-55 ... +80 °C |
| <b>Temperature compensation</b>                                                                                            | -40 ... +60 °C                                     |
| Relative humidity during operation                                                                                         | 0 ... 90 %                                         |

#### Main circuit

|                                                                                                                                          |                        |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Number of poles for main current circuit</b>                                                                                          | 3                      |
| <b>Adjustable pick-up value current of the current-dependent overload release</b>                                                        | 4.5 ... 6.3 A          |
| <b>Operating voltage</b>                                                                                                                 |                        |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>                                   | 690 V<br>690 V         |
| <b>Operating frequency rated value</b>                                                                                                   | 50 ... 60 Hz           |
| <b>Operating current rated value</b>                                                                                                     | 6.3 A                  |
| <b>Operating power at AC-3</b>                                                                                                           |                        |
| <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> | 2.2 kW<br>3 kW<br>4 kW |

#### Auxiliary circuit

|                                                                                 |                             |
|---------------------------------------------------------------------------------|-----------------------------|
| <b>Design of the auxiliary switch</b>                                           | integrated                  |
| <b>Number of NC contacts for auxiliary contacts</b>                             | 1                           |
| <ul style="list-style-type: none"> <li>• Note</li> </ul>                        | for contactor disconnection |
| <b>Number of NO contacts for auxiliary contacts</b>                             | 1                           |
| <ul style="list-style-type: none"> <li>• Note</li> </ul>                        | for message "Tripped"       |
| <b>Number of CO contacts</b>                                                    |                             |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>      | 0                           |
| <b>Operating current of auxiliary contacts at AC-15</b>                         |                             |
| <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 110 V</li> </ul> | 3 A<br>3 A                  |

|                                                             |             |
|-------------------------------------------------------------|-------------|
| • at 120 V                                                  | 3 A         |
| • at 125 V                                                  | 3 A         |
| • at 230 V                                                  | 2 A         |
| • at 400 V                                                  | 1 A         |
| <b>Operating 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 |

#### Protective and monitoring functions

|                                       |          |
|---------------------------------------|----------|
| <b>Trip class</b>                     | CLASS 10 |
| <b>Design of the overload release</b> | thermal  |

#### UL/CSA ratings

|                                                         |       |
|---------------------------------------------------------|-------|
| <b>Full-load current (FLA) for three-phase AC motor</b> |       |
| • at 480 V rated value                                  | 6.3 A |
| • at 600 V rated value                                  | 6.3 A |

#### Short-circuit protection

|                                                                 |                           |
|-----------------------------------------------------------------|---------------------------|
| <b>Design of the fuse link</b>                                  |                           |
| • for short-circuit protection of the auxiliary switch required | fuse gG: 6 A, quick: 10 A |

#### Installation/ mounting/ dimensions

|                              |       |
|------------------------------|-------|
| <b>Mounting position</b>     | any   |
| <b>Height</b>                | 85 mm |
| <b>Width</b>                 | 45 mm |
| <b>Depth</b>                 | 85 mm |
| <b>Required spacing</b>      |       |
| • with side-by-side mounting |       |
| — forwards                   | 0 mm  |
| — Backwards                  | 0 mm  |
| — upwards                    | 6 mm  |
| — downwards                  | 6 mm  |
| — at the side                | 6 mm  |
| • for grounded parts         |       |
| — forwards                   | 0 mm  |
| — Backwards                  | 0 mm  |
| — upwards                    | 6 mm  |
| — at the side                | 6 mm  |
| — downwards                  | 6 mm  |

|                  |      |
|------------------|------|
| • for live parts |      |
| — forwards       | 0 mm |
| — Backwards      | 0 mm |
| — upwards        | 6 mm |
| — downwards      | 6 mm |
| — at the side    | 6 mm |

## Connections/Terminals

|                                                                      |                                                                                         |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Product function</b>                                              |                                                                                         |
| • removable terminal for auxiliary and control circuit               | No                                                                                      |
| <b>Type of electrical connection</b>                                 |                                                                                         |
| • for main current circuit                                           | screw-type terminals                                                                    |
| • for auxiliary and control current 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                                                  |                                                                                         |
| — single or multi-stranded                                           | 2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )                       |
| — finely stranded with core end processing                           | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> |
| • at AWG conductors for main contacts                                | 2x (16 ... 12), 2x (14 ... 8)                                                           |
| <b>Type of connectable conductor cross-sections</b>                  |                                                                                         |
| • for auxiliary contacts                                             |                                                                                         |
| — single or multi-stranded                                           | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )                   |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                   |
| • at AWG conductors for auxiliary contacts                           | 2x (20 ... 16), 2x (18 ... 14)                                                          |
| <b>Tightening torque</b>                                             |                                                                                         |
| • for main contacts with screw-type terminals                        | 2 ... 2.5 N·m                                                                           |
| • for auxiliary contacts with screw-type terminals                   | 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>                  |                                                                                         |
| • for main contacts                                                  | M4                                                                                      |
| • of the auxiliary and control contacts                              | M3                                                                                      |

## Safety related data

|                                                                           |         |
|---------------------------------------------------------------------------|---------|
| <b>Failure rate [FIT]</b>                                                 |         |
| • with low demand rate acc. to SN 31920                                   | 50 FIT  |
| <b>MTTF with high demand rate</b>                                         | 2 280 y |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y    |

## Display

|                        |  |
|------------------------|--|
| <b>Display version</b> |  |
|------------------------|--|

- for switching status

Slide switch

## Certificates/approvals

| General Product Approval                                                                      |                                                                                           |                                                                                           | For use in hazardous locations                                                                              |                                                                                                       |                                                                                              |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <br>CCC      | <br>CSA  | <br>UL   | <br>EAC                    | <br>ATEX           | <br>IECEX |
| Declaration of Conformity                                                                     | Test Certificates                                                                         |                                                                                           | Marine / Shipping                                                                                           |                                                                                                       |                                                                                              |
| <br>EG-Konf. | <a href="#">Type Test Certificates/Test Report</a>                                        | <a href="#">Special Test Certificate</a>                                                  | <br>ABS                    | <br>BUREAU VERITAS | <br>LRS   |
| Marine / Shipping                                                                             |                                                                                           |                                                                                           | other                                                                                                       | Railway                                                                                               |                                                                                              |
| <br>PRS      | <br>RINA | <br>RMRS | <br>DNV-GL<br>DNVGL.COM/AF | <a href="#">Confirmation</a>                                                                          | <a href="#">Vibration and Shock</a>                                                          |

## Further information

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2126-1GB0>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2126-1GB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1GB0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2126-1GB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2126-1GB0&lang=en)

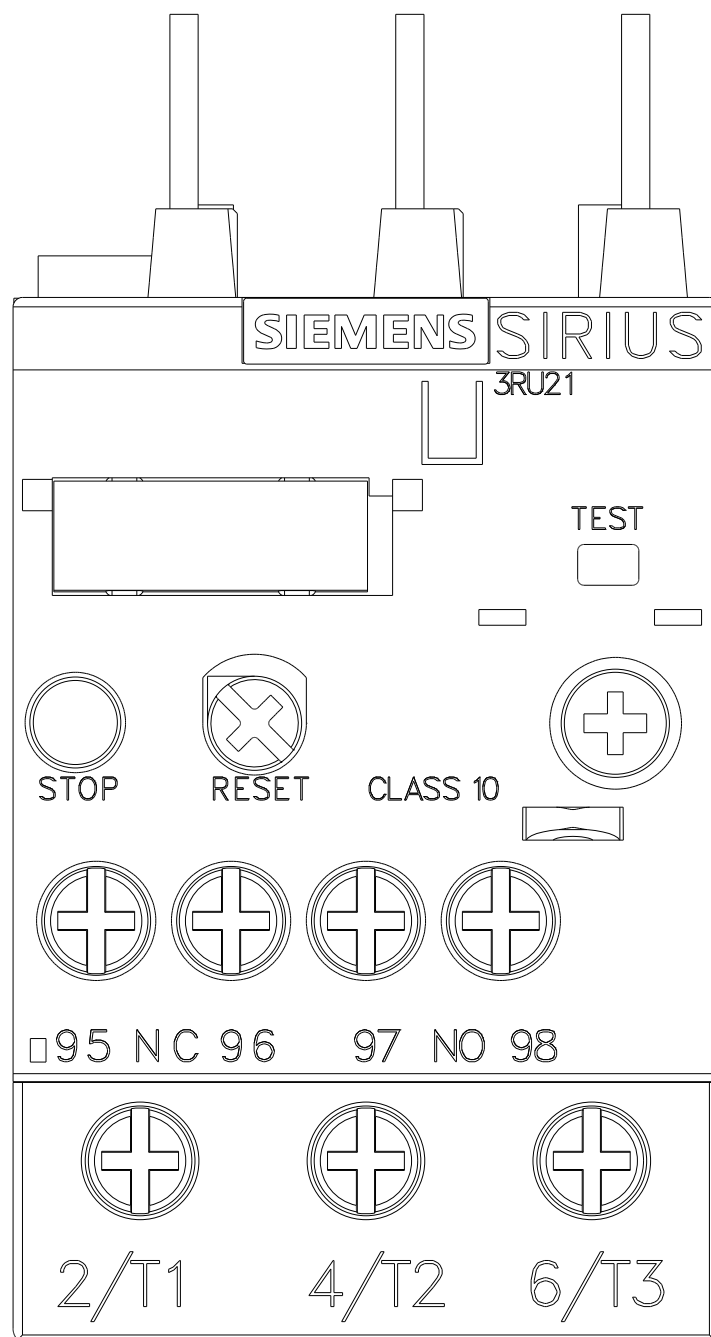
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

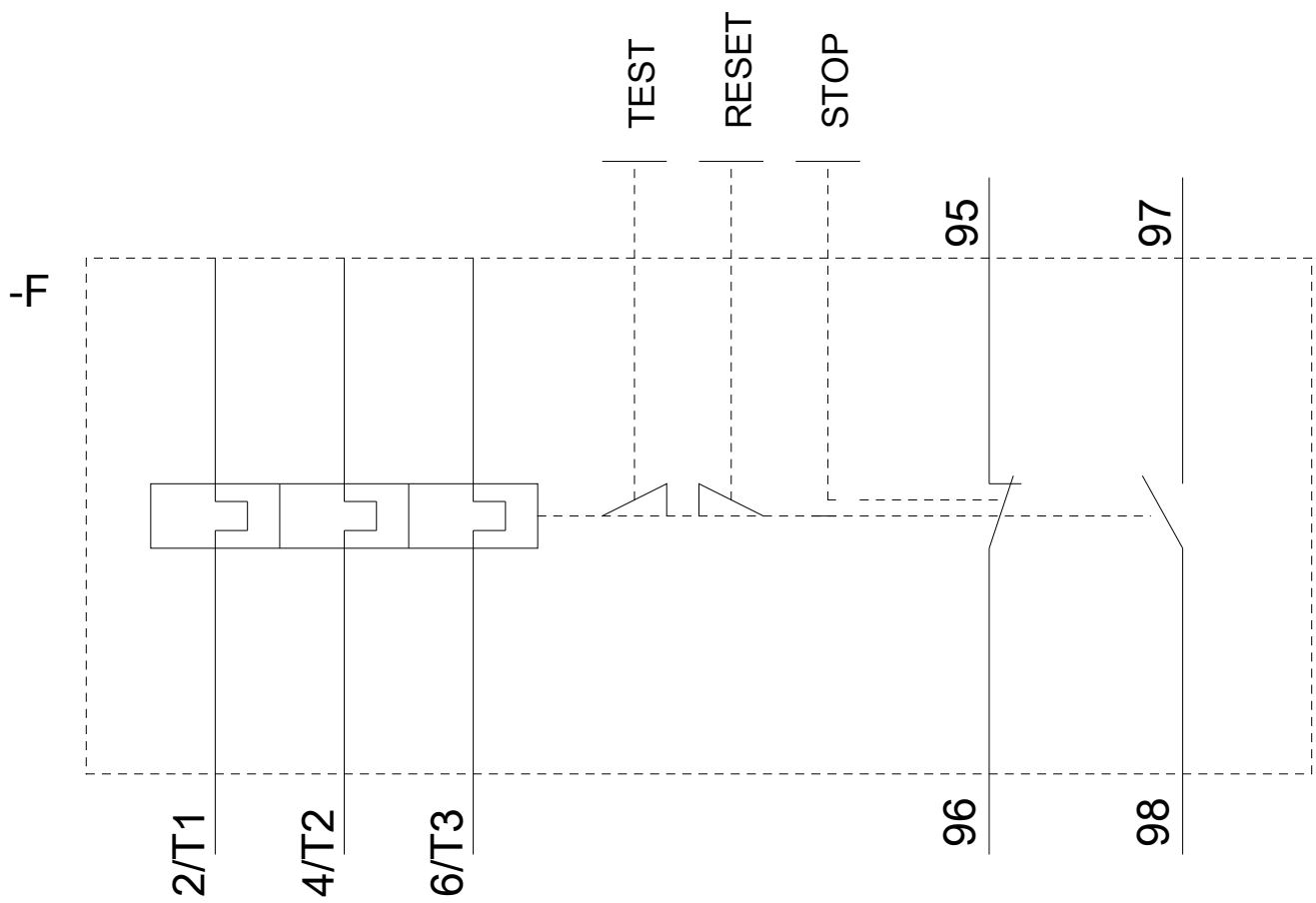
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1GB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2126-1GB0&objecttype=14&gridview=view1>







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