

3RU2126-4DB0 THERM. OVERLOAD RELAY 20 - 25 A

Technical / CAx data

☒ Technical Data ☐ CAx data



OVERLOAD RELAY 20...25 A FOR MOTOR PROTECTION  
SZ S0, CLASS 10, F. MOUNTING ONTO CONTACTOR  
MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT:  
SCREW TERMINAL MANUAL-AUTOMATIC-RESET

General technical data:

|                                                                            |     |                             |
|----------------------------------------------------------------------------|-----|-----------------------------|
| product brand name                                                         |     | SIRIUS                      |
| product designation                                                        |     | 3RU2 thermal overload relay |
| Protection class IP / on the front                                         |     | IP20                        |
| Insulation voltage / with degree of pollution 3                            |     |                             |
| • rated value                                                              | V   | 690                         |
| Installation altitude / at a height over sea level / maximum               | m   | 2,000                       |
| Ambient temperature                                                        |     |                             |
| • during transport                                                         | °C  | -55...+80                   |
| • during storage                                                           | °C  | -55...+80                   |
| • during operating                                                         | °C  | -40...+70                   |
| Relative humidity                                                          |     |                             |
| • during operating phase                                                   | / % | 90                          |
| Resistance against shock                                                   |     | 8g / 11 ms                  |
| Impulse voltage resistance / rated value                                   | kV  | 6                           |
| Active power loss / total / typical                                        | W   | 6.2                         |
| Item designation                                                           |     |                             |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 |     | F                           |
| • according to DIN EN 61346-2                                              |     | F                           |
| Trip class                                                                 |     | CLASS 10                    |
| Type of assignment                                                         |     | 2                           |
| Size of overload relay                                                     |     | S0                          |
| Size of the contactor / can be combined                                    |     |                             |
| • company-specific                                                         |     | S0                          |

Main circuit:

|                                                           |    |         |
|-----------------------------------------------------------|----|---------|
| <b>Number of poles / for main current circuit</b>         |    | 3       |
| <b>Operating voltage / at AC-3 / rated value</b>          |    |         |
| • maximum                                                 | V  | 690     |
| <b>Operating current / at AC-3 / at 400 V</b>             |    |         |
| • rated value                                             | A  | 25      |
| <b>Service power / at AC-3</b>                            |    |         |
| • at 400 V / rated value                                  | kW | 11      |
| • at 500 V / rated value                                  | kW | 15      |
| • at 690 V / rated value                                  | kW | 22      |
| <b>Adjustable response current</b>                        |    |         |
| • of the current-dependent overload release               | A  | 20...25 |
| <b>Operating current / of the fuse link / rated value</b> | A  | 63      |

#### Auxiliary circuit:

|                                                                |   |                                            |
|----------------------------------------------------------------|---|--------------------------------------------|
| <b>Contact reliability / of the auxiliary contacts</b>         |   | < 1 error per 100 million operating cycles |
| <b>Number of NC contacts / for auxiliary contacts</b>          |   | 1                                          |
| <b>Number of NO contacts / for auxiliary contacts</b>          |   | 1                                          |
| <b>Number of change-over switches / for auxiliary contacts</b> |   | 0                                          |
| <b>Operating current / of the auxiliary contacts</b>           |   |                                            |
| • at AC-15                                                     |   |                                            |
| • at 24 V                                                      | A | 3                                          |
| • at 110 V                                                     | A | 3                                          |
| • at 120 V                                                     | A | 3                                          |
| • at 125 V                                                     | A | 3                                          |
| • at 230 V                                                     | A | 2                                          |
| • at 400 V                                                     | A | 1                                          |
| • at DC-13                                                     |   |                                            |
| • at 24 V                                                      | A | 1                                          |
| • at 110 V                                                     | A | 0.22                                       |
| • at 125 V                                                     | A | 0.22                                       |
| • at 220 V                                                     | A | 0.11                                       |

#### Short-circuit:

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

#### Installation/mounting/dimensions:

|                                                          |    |                 |
|----------------------------------------------------------|----|-----------------|
| <b>Built in orientation</b>                              |    | vertical        |
| <b>Type of mounting</b>                                  |    | direct mounting |
| <b>Width</b>                                             | mm | 45              |
| <b>Height</b>                                            | mm | 87              |
| <b>Depth</b>                                             | mm | 73              |
| <b>Distance, to be maintained, to the ranks assembly</b> |    |                 |
| • forwards                                               | mm | 0               |
| • backwards                                              | mm | 0               |
| • upwards                                                | mm | 6               |
| • downwards                                              | mm | 6               |
| • sideways                                               | mm | 6               |
| <b>Distance, to be maintained, to earthed part</b>       |    |                 |
| • forwards                                               | mm | 0               |
| • backwards                                              | mm | 0               |
| • upwards                                                | mm | 6               |
| • downwards                                              | mm | 6               |
| • sideways                                               | mm | 6               |
| <b>Distance, to be maintained, conductive elements</b>   |    |                 |
| • forwards                                               | mm | 0               |
| • backwards                                              | mm | 0               |

- upwards
- downwards
- sideways

|    |   |
|----|---|
| mm | 6 |
| mm | 6 |
| mm | 6 |

#### Connections:

##### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

##### Product function / removable terminal for auxiliary and control circuit

screw-type terminals  
screw-type terminals  
No

##### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 10 mm<sup>2</sup>)  
  
2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup>  
2x (16 ... 12), 2x (14 ... 8)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14)

#### Certificates/approvals:

##### Verification of suitability

- ATEX

CE / UL / CSA  
Yes

##### General Product Approval

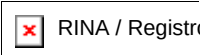
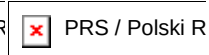
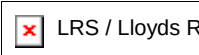
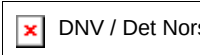
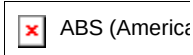
##### For use in hazardous locations



##### Test Certificates

Special Test Certificate      Type Test Certificates/Test Report

##### Shipping Approval



##### Shipping Approval other



#### UL/CSA ratings:

##### Contact rating designation / for auxiliary contacts / according to UL

B600 / R300

#### Reliability figures:

##### Mean time to failure (MTTF) / with high demand rate

a 2,280

##### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

% 50  
% 50

##### Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT 50

##### T1 value / for proof test interval or service life

- according to IEC 61508

a 20

##### Protection against electrical shock

finger-safe

**Further information:**

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator:**

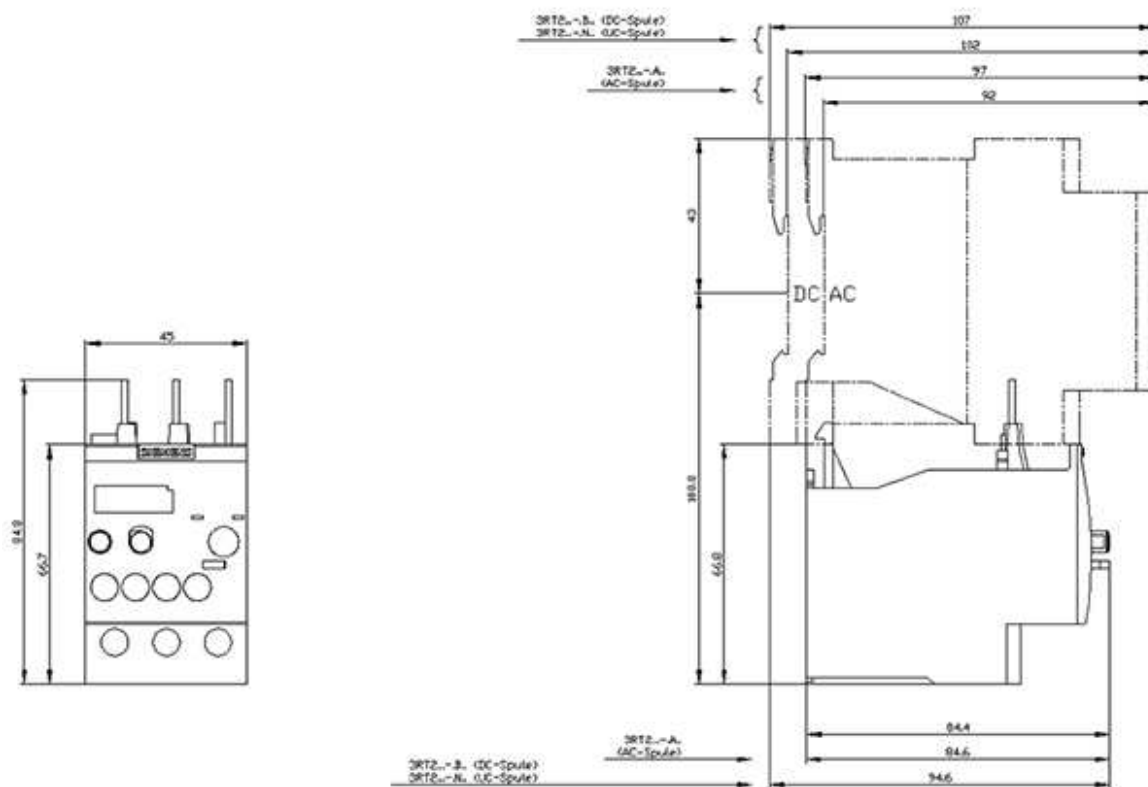
<http://www.siemens.com/cax>

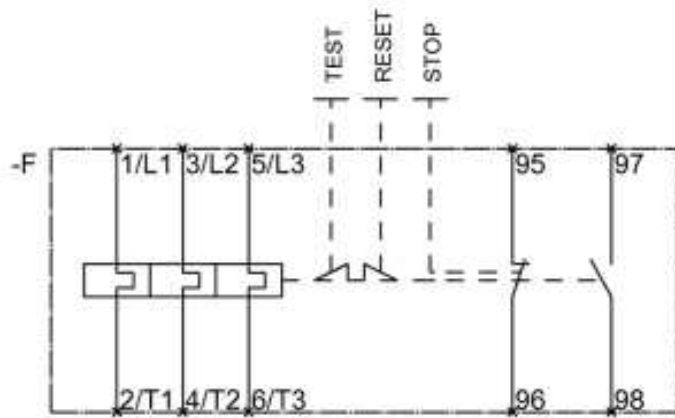
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RU2126-4DB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RU2126-4DB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2126-4DB0)





last change:

Mar 27, 2012