

OVERLOAD RELAY 28...40 A FOR MOTOR PROTECTION SIZE S2, CLASS 10 FOR MOUNTING ONTO CONTACTORS MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SPRING-T. TERM. MANUAL-AUTOMATIC-RESET.



Figure similar

|                                                                                |                             |
|--------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                             | SIRIUS                      |
| Product designation                                                            | 3RU2 thermal overload relay |
| General technical data:                                                        |                             |
| Size of overload relay                                                         | S2                          |
| Size of contactor can be combined company-specific                             | S2                          |
| Power loss [W] total typical                                                   | 11 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 | 415 V                       |
| • in networks with grounded star point between auxiliary and auxiliary circuit | 415 V                       |
| • in networks with grounded star point between main and auxiliary circuit      | 690 V                       |
| • in networks with grounded star point between main and auxiliary circuit      | 690 V                       |
| Protection class IP                                                            |                             |
| • on the front                                                                 | IP20                        |

|                                                    |                                                                  |
|----------------------------------------------------|------------------------------------------------------------------|
| • of the terminal                                  | IP00                                                             |
| <b>Shock resistance</b>                            |                                                                  |
| • acc. to IEC 60068-2-27                           | 8g / 11 ms                                                       |
| <b>Recovery time</b>                               |                                                                  |
| • after overload trip with automatic reset typical | 10 min                                                           |
| • after overload trip with remote-reset            | 10 min                                                           |
| • after overload trip with manual reset            | 10 min                                                           |
| <b>Type of protection</b>                          | Ex e                                                             |
| <b>Certificate of suitability relating to ATEX</b> | DMT 98 ATEX G 001                                                |
| <b>Protection against electrical shock</b>         | finger-safe when touched vertically from front acc. to IEC 60529 |
| Equipment marking acc. to DIN EN 81346-2           | F                                                                |

#### Ambient conditions:

|                                                                |                |
|----------------------------------------------------------------|----------------|
| <b>Installation altitude at height above sea level maximum</b> | 2 000 m        |
| <b>Ambient temperature</b>                                     |                |
| • during operation                                             | -40 ... +70 °C |
| • during storage                                               | -55 ... +80 °C |
| • during transport                                             | -55 ... +80 °C |
| <b>Temperature compensation</b>                                | -40 ... +60 °C |

#### 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> | 28 ... 40 A  |
| <b>Operating voltage</b>                                                          |              |
| • rated value                                                                     | 690 V        |
| • at AC-3 rated value maximum                                                     | 690 V        |
| <b>Operating frequency rated value</b>                                            | 50 ... 60 Hz |
| <b>Operating current rated value</b>                                              | 40 A         |

#### Auxiliary circuit:

|                                                         |                             |
|---------------------------------------------------------|-----------------------------|
| <b>Design of the auxiliary switch</b>                   | integrated                  |
| <b>Number of NC contacts</b>                            |                             |
| • for auxiliary contacts                                | 1                           |
| — Note                                                  | for contactor disconnection |
| <b>Number of NO contacts</b>                            |                             |
| • for auxiliary contacts                                | 1                           |
| — Note                                                  | for message "Tripped"       |
| <b>Number of CO contacts</b>                            |                             |
| • for auxiliary contacts                                | 0                           |
| <b>Operating current of auxiliary contacts at AC-15</b> |                             |
| • at 24 V                                               | 3 A                         |
| • at 110 V                                              | 3 A                         |

|                                                                                                                                                                                 |                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 120 V</li> <li>• at 125 V</li> <li>• at 230 V</li> <li>• at 400 V</li> </ul>                                                        | 3 A<br>3 A<br>2 A<br>1 A                                      |
| <b>Operating current of auxiliary contacts at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 110 V</li> <li>• at 125 V</li> <li>• at 220 V</li> </ul> | 2 A<br>0.22 A<br>0.22 A<br>0.11 A                             |
| <b>Design of the miniature circuit breaker</b> <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                | 6A (SCC less than equal to 0.5 kA; U less than equal to 260V) |

#### 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> <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul> | 40 A<br>40 A |
| <b>Contact rating of auxiliary contacts according to UL</b>                                                                                                      | B600 / R300  |

#### Short-circuit protection

|                                                                                                                                                  |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <b>Design of the fuse link</b> <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 |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|

#### Installation/ mounting/ dimensions:

|                                                                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Mounting position</b>                                                                                                                                                                                                                                                                                                                                                                     | any                                                                    |
| <b>Mounting type</b>                                                                                                                                                                                                                                                                                                                                                                         | direct mounting                                                        |
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                | 90 mm                                                                  |
| <b>Width</b>                                                                                                                                                                                                                                                                                                                                                                                 | 55 mm                                                                  |
| <b>Depth</b>                                                                                                                                                                                                                                                                                                                                                                                 | 105 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> </ul> </li> </ul> | 10 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br><br>10 mm<br>0 mm<br>10 mm |

|                  |       |
|------------------|-------|
| — at the side    | 10 mm |
| — downwards      | 10 mm |
| • for live parts |       |
| — forwards       | 10 mm |
| — Backwards      | 0 mm  |
| — upwards        | 10 mm |
| — downwards      | 10 mm |
| — at the side    | 10 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                          | spring-loaded 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 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> ) |
| — finely stranded with core end processing                           | 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> ) |
| • at AWG conductors for main contacts                                | 2x (18 ... 2), 1x (18 ... 1)                                   |
| <b>Type of connectable conductor cross-sections</b>                  |                                                                |
| • for auxiliary contacts                                             |                                                                |
| — single or multi-stranded                                           | 2x (0,5 ... 2,5 mm <sup>2</sup> )                              |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> )                              |
| — finely stranded without core end processing                        | 2x (0.5 ... 2.5 mm <sup>2</sup> )                              |
| • at AWG conductors for auxiliary contacts                           | 2x (20 ... 14)                                                 |
| <b>Tightening torque</b>                                             |                                                                |
| • for main contacts with screw-type terminals                        | 3 ... 4.5 N·m                                                  |
| <b>Design of screwdriver shaft</b>                                   | 5 to 6 mm diameter                                             |
| <b>Design of the thread of the connection screw</b>                  |                                                                |
| • for main contacts                                                  | M6                                                             |

#### Safety related data:

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



CCC



CSA



UL



ATEX



IECEX

Declaration of  
Conformity

Test Certificates

other



EG-Konf.

[Typprüfbescheinigung/Werkszeugnis](#)
[spezielle  
Prüfbescheinigung  
n](#)
[Umweltbestätigung](#)

## 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=3RU21364FD0>

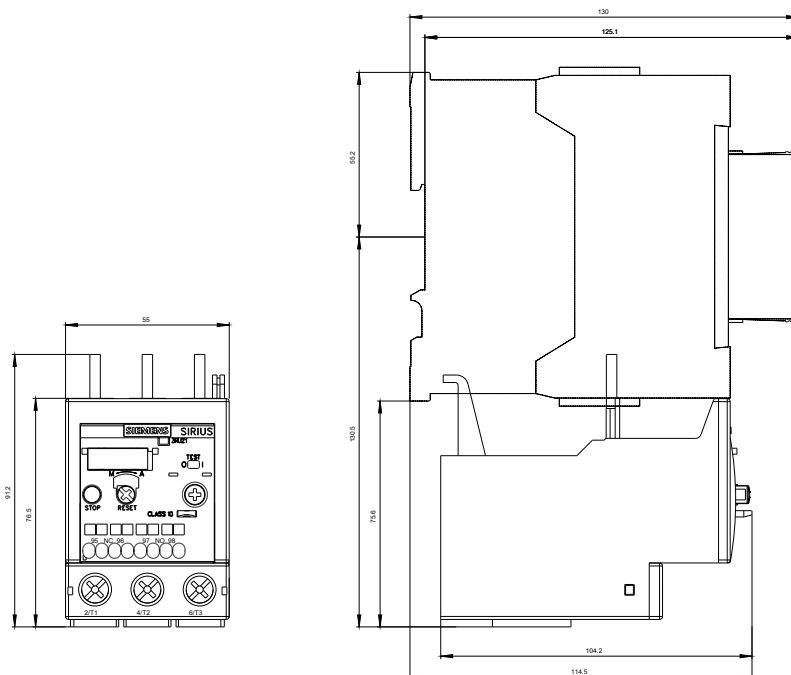
Cax online generator

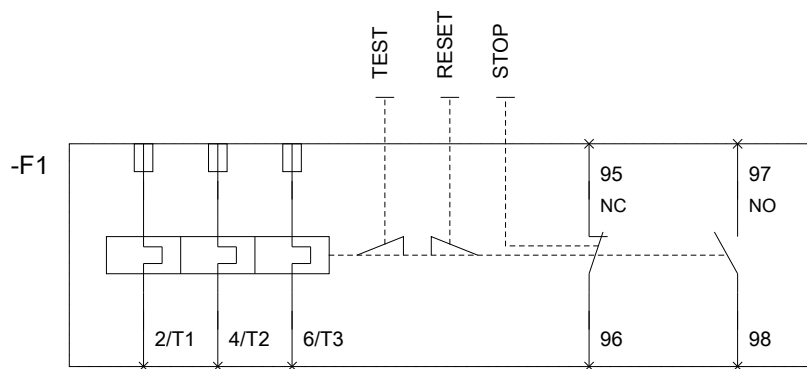
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21364FD0>

Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RU21364FD0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU21364FD0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21364FD0&lang=en)




last modified:

30.04.2016