

OVERLOAD RELAY 27...32 A FOR MOTOR PROTECTION SZ S0,  
CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT:  
SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-  
AUTOMATIC-RESET



|  |                             |
|--|-----------------------------|
| product brand name   | SIRIUS                      |
| Product designation  | 3RU2 thermal overload relay |
| <b>General technical data:</b>   |                             |
| Size of overload relay   | S0                          |
| Size of contactor can be combined company-specific   | S0                          |
| Power loss [W] total typical   | 6.9 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   |                             |
| <ul style="list-style-type: none"> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul> | 440 V                       |
| <ul style="list-style-type: none"> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul> | 440 V                       |
| <ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>      | 440 V                       |
| <ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>      | 440 V                       |
| Protection class IP  |                             |
| <ul style="list-style-type: none"> <li>on the front</li> </ul>   | IP20                        |

|  |                   |
|--|-------------------|
| • of the terminal                                  | IP20              |
| <b>Shock resistance</b>                            |                   |
| • acc. to IEC 60068-2-27                           | 8g / 11 ms        |
| <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       |
| 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> | 27 ... 32 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>  | 32 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                         |
| • 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 110 V  | 0.22 A |
| • at 125 V  | 0.22 A |
| • at 220 V  | 0.11 A |

|   |          |
|---|----------|
| <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 three-phase AC motor</b>     |             |
| • at 480 V rated value                                      | 32 A        |
| • at 600 V rated value                                      | 32 A        |
| <b>Contact rating of auxiliary contacts according to UL</b> | B600 / R300 |

|  |                 |
|--|-----------------|
| <b>Installation/ mounting/ dimensions:</b> |                 |
| <b>Mounting position</b>                   | any             |
| <b>Mounting type</b>                       | direct mounting |
| <b>Height</b>                              | 102 mm          |
| <b>Width</b>                               | 45 mm           |
| <b>Depth</b>                               | 84 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            |

|                                |  |
|--------------------------------|--|
| <b>Connections/ Terminals:</b> |  |
| <b>Product function</b>        |  |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>  | No  |
| <b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control current circuit</li> </ul>  | spring-loaded terminals<br>spring-loaded terminals  |
| <b>Arrangement of electrical connectors for main current circuit</b>  | Top and bottom  |
| <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>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG conductors for main contacts</li> </ul>           | 1x (1 ... 10 mm <sup>2</sup> )<br>1x (1 ... 6 mm <sup>2</sup> )<br>1x (1 ... 6 mm <sup>2</sup> )<br>1x (18 ... 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>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG conductors for auxiliary contacts</li> </ul> | 2x (0,5 ... 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 (0.5 ... 1.5 mm <sup>2</sup> )<br>2x (20 ... 14) |
| <b>Design of screwdriver shaft</b>  | 5 to 6 mm diameter  |

#### Safety related data:

|   |         |
|---|---------|
| <b>Failure rate [FIT]</b> <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul> | 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> <ul style="list-style-type: none"> <li>for switching status</li> </ul> | Slide switch |
|---|--------------|

#### Certificates/approvals

|                          |                                |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|



|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------|-------------------|-------------------|



[Typrüfbescheinigung/Werkszeugnis](#)



|                   |       |         |
|-------------------|-------|---------|
| Shipping Approval | other | Railway |
|-------------------|-------|---------|



[Umweltbestätigung](#)

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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=3RU21264EC0>

Cax online generator

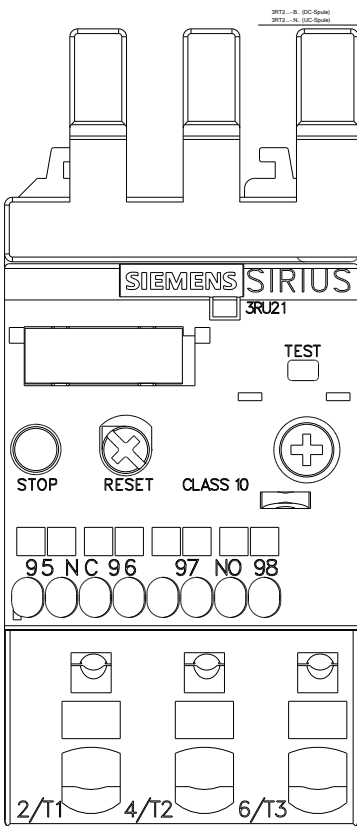
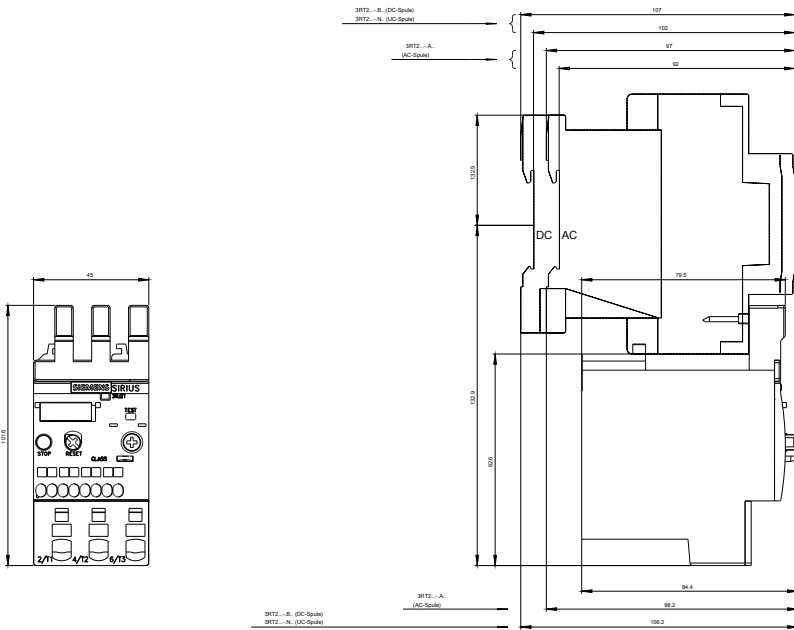
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21264EC0>

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

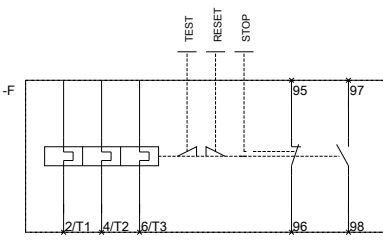
<https://support.industry.siemens.com/cs/ww/en/ps/3RU21264EC0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU21264EC0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21264EC0&lang=en)



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last modified:

24.02.2016

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