

OVERLOAD RELAY 0.70...1.0 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-AUTOMATIC-RESET



|                                                                                |                             |
|--------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                             | SIRIUS                      |
| Product designation                                                            | 3RU2 thermal overload relay |
| General technical data:                                                        |                             |
| Size of overload relay                                                         | S00                         |
| Size of contactor can be combined company-specific                             | S00                         |
| Power loss [W] total typical                                                   | 4.5 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                                                            |                             |
| • on the front                                                                 | 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> | 0.7 ... 1 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>                                              | 1 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                                      | 1 A                      |
| • at 600 V rated value                                      | 1 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>                                        | stand-alone installation |
| <b>Height</b>                                               | 102 mm                   |
| <b>Width</b>                                                | 45 mm                    |
| <b>Depth</b>                                                | 79 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 (0,5 ... 4 mm <sup>2</sup> )<br>1x (0.5 ... 2.5 mm <sup>2</sup> )<br>1x (0.5 ... 2.5 mm <sup>2</sup> )<br><br>1x (20 ... 12)                                       |
| <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><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 |
|---------------------------|-------------------|-------------------|
|---------------------------|-------------------|-------------------|



[Typprüfbescheinigung/Werkszeugnis](#)



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



[Umweltbestätigung](#)

[Bestätigungen](#)

| Railway |
|---------|
|---------|

[Schwingen/Schockenn](#)

| 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=3RU21160JC1>

Cax online generator

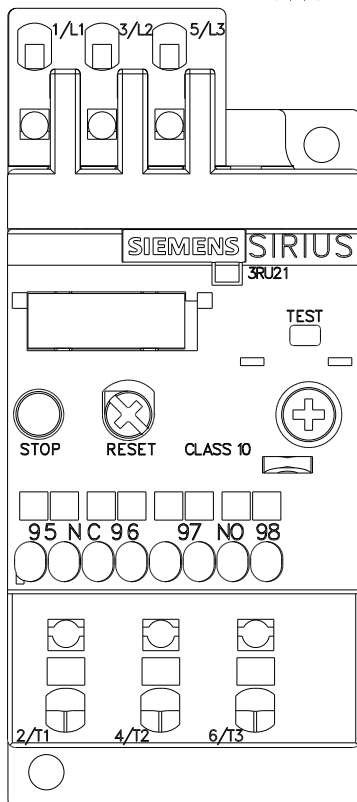
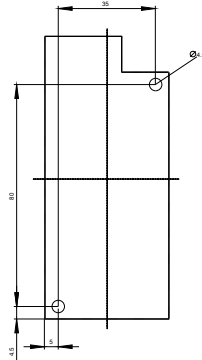
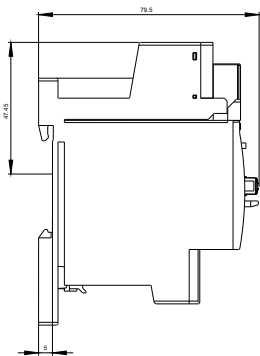
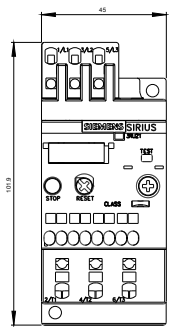
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21160JC1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU21160JC1>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU21160JC1&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21160JC1&lang=en)



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04.07.2016