

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

|                     |  |                             |
|---------------------|--|-----------------------------|
| product brand name  |  | SIRIUS                      |
| Product designation |  | 3RU2 thermal overload relay |

**General technical data:**

|   |    |             |
|---|----|-------------|
| <b>Active power loss total typical</b>                    | W  | 6.9         |
| <b>Insulation voltage</b>                                 |    |             |
| • with degree of pollution 3 Rated value                  | V  | 690         |
| <b>Shock resistance</b>                                   |    |             |
| • acc. to IEC 60068-2-27                                  |    | 8g / 11 ms  |
| <b>Surge voltage resistance Rated value</b>               | kV | 6           |
| <b>Temperature compensation</b>                           | °C | -40 ... +60 |
| <b>Size of contactor can be combined company-specific</b> |    | S0          |
| <b>Type of assignment</b>                                 |    | 2           |
| <b>Protection class IP</b>                                |    |             |
| • on the front  |    | IP20        |
| • of the terminal   |    | IP20        |
| <b>Equipment marking</b>                                  |    |             |
| • acc. to DIN EN 81346-2                                  |    | F           |

**Main circuit:**

|  |    |           |
|--|----|-----------|
| <b>Number of poles for main current circuit</b>                                    |    | 3         |
| <b>Adjustable response value current of the current-dependent overload release</b> | A  | 27 ... 32 |
| <b>Operating voltage</b>   |    |           |
| • Rated value  | V  | 690       |
| • at AC-3 Rated value maximum  | V  | 690       |
| <b>Operating frequency Rated value</b>   | Hz | 50 ... 60 |

|                                      |   |    |
|--------------------------------------|---|----|
| <b>Operating current Rated value</b> | A | 32 |
| <b>Operating current</b>             |   |    |
| • at AC-3                            |   |    |
| — at 400 V Rated value               | A | 32 |

#### Auxiliary circuit:

|   |   |                             |
|---|---|-----------------------------|
| <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>Design of the auxiliary switch</b>                       |   | integrated                  |
| <b>Operating current of the auxiliary contacts at AC-15</b> |   |                             |
| • 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                           |
| <b>Operating current of the auxiliary contacts at DC-13</b> |   |                             |
| • at 24 V   | A | 2                           |
| • at 110 V  | A | 0.22                        |
| • at 125 V  | A | 0.22                        |
| • at 220 V  | A | 0.11                        |

#### Protective and monitoring functions:

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

#### UL/CSA ratings:

|  |   |             |
|--|---|-------------|
| <b>Full-load current (FLA) for three-phase AC motor</b>    |   |             |
| • at 480 V Rated value                                     | A | 32          |
| • at 600 V Rated value                                     | A | 32          |
| <b>Contact rating of the auxiliary contacts acc. to UL</b> |   | B600 / R300 |

#### Installation/ mounting/ dimensions:

|                          |    |                 |
|--------------------------|----|-----------------|
| <b>mounting position</b> |    | any             |
| <b>Mounting type</b>     |    | direct mounting |
| <b>Height</b>            | mm | 85              |
| <b>Width</b>             | mm | 45              |
| <b>Depth</b>             | mm | 85              |
| <b>Required spacing</b>  |    |                 |

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

#### Connections/ Terminals:

|  |     |                       |
|--|-----|-----------------------|
| <b>Type of electrical connection</b>                                 |     |                       |
| • for main current circuit   |     | ring cable connection |
| • for auxiliary and control current circuit                          |     | ring cable connection |
| <b>Arrangement of electrical connectors for main current circuit</b> |     | Top and bottom        |
| <b>Product function</b>  |     |                       |
| • removable terminal for auxiliary and control circuit               |     | No                    |
| <b>Tightening torque</b>   |     |                       |
| • for ring cable lug   |     |                       |
| — for main contacts  | N·m | 2.5 ... 2             |
| — for auxiliary contacts   | N·m | 0.8 ... 1.2           |
| <b>Outer diameter of the usable ring cable lug maximum</b>           | mm  | 7.5                   |
| <b>Design of screwdriver shaft</b>                                   |     | 5 to 6 mm diameter    |
| <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>Proportion of dangerous failures</b>  |   |    |
| • with low demand rate acc. to SN 31920  | % | 50 |
| • with high demand rate acc. to SN 31920 | % | 50 |

|  |     |             |
|--|-----|-------------|
| Failure rate [FIT] with low demand rate acc. to SN 31920           | FIT | 50          |
| MTTF with high demand rate   | y   | 2 280       |
| T1 value for proof test interval or service life acc. to IEC 61508 | y   | 20          |
| Protection against electrical shock                                |     | finger-safe |

#### Mechanical data:

|                        |  |    |
|------------------------|--|----|
| Size of overload relay |  | S0 |
|------------------------|--|----|

#### Ambient conditions:

|   |    |             |
|---|----|-------------|
| Installation altitude at height above sea level maximum | m  | 2 000       |
| Ambient temperature                                     |    |             |
| • during operation                                      | °C | -40 ... +70 |
| • during storage  | °C | -55 ... +80 |
| • during transport                                      | °C | -55 ... +80 |
| Relative humidity during operation                      | %  | 0 ... 90    |

#### Display:

|                        |  |              |
|------------------------|--|--------------|
| Display version        |  | Slide switch |
| • for switching status |  |              |

#### Certificates/ approvals:

|                          |                                |                           |
|--------------------------|--------------------------------|---------------------------|
| General Product Approval | For use in hazardous locations | Declaration of Conformity |
|--------------------------|--------------------------------|---------------------------|



|                   |                   |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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



[Environmental Confirmations](#)

#### Further information

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

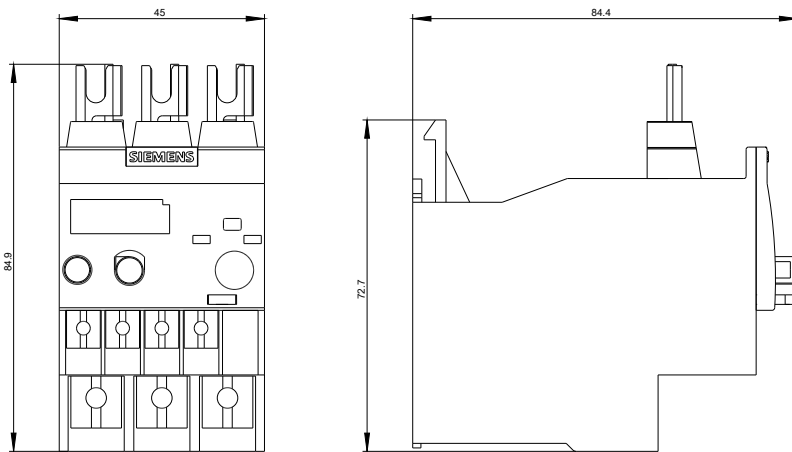
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RU21264EJ0>

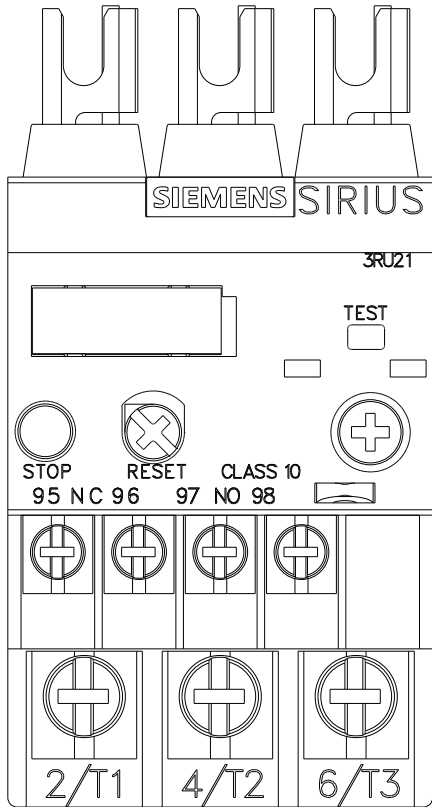
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RU21264EJ0/all>

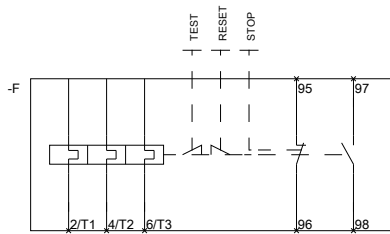
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RU21264EJ0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RU21264EJ0&lang=en)





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