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## Data sheet 3RU2126-4BB0




OVERLOAD RELAY 14...20 A FOR MOTOR PROTECTION SZ S0, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET

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

| General technical data: | |
|---|---|
| **Size of overload relay** | S0 |
| **Size of contactor can be combined company-specific** | S0 |
| **Power loss [W] total typical** | 6.2 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 |


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| | |
|---|---|
| • of the terminal | IP20 |
| **Shock resistance** | |
| • acc. to IEC 60068-2-27 | 8g / 11 ms |
| **Type of protection** | Ex e |
| **Certificate of suitability relating to ATEX** | DMT 98 ATEX G 001 |
| **Protection against electrical shock** | finger-safe |
| Equipment marking acc. to DIN EN 81346-2 | F |

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

| Main circuit: | |
|---|---|
| **Number of poles for main current circuit** | 3 |
| **Adjustable pick-up value current of the current-dependent overload release** | 14 ... 20 A |
| **Operating voltage** | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| **Operating frequency rated value** | 50 ... 60 Hz |
| **Operating current rated value** | 20 A |

| Auxiliary circuit: | |
|---|---|
| **Design of the auxiliary switch** | integrated |
| **Number of NC contacts** | |
| • for auxiliary contacts | 1 |
| — Note | for contactor disconnection |
| **Number of NO contacts** | |
| • for auxiliary contacts | 1 |
| — Note | for message "Tripped" |
| **Number of CO contacts** | |
| • for auxiliary contacts | 0 |
| **Operating current of auxiliary contacts at AC-15** | |
| • 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 |


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| | |
|---|---|
| **Operating current of auxiliary contacts at DC-13** | |
| • at 24 V | 2 A |
| • at 110 V | 0.22 A |
| • at 125 V | 0.22 A |
| • at 220 V | 0.11 A |

## Protective and monitoring functions:

| | |
|---|---|
| **Trip class** | Class 10 |
| **Design of the overload release** | thermal |

## UL/CSA ratings:

| | |
|---|---|
| **Full-load current (FLA) for three-phase AC motor** | |
| • at 480 V rated value | 20 A |
| • at 600 V rated value | 20 A |
| **Contact rating of auxiliary contacts according to UL** | B600 / R300 |

## Installation/ mounting/ dimensions:

| | |
|---|---|
| **Mounting position** | any |
| **Mounting type** | direct mounting |
| **Height** | 85 mm |
| **Width** | 45 mm |
| **Depth** | 85 mm |
| **Required spacing** | |
| • 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 |

## Connections/ Terminals:

| | |
|---|---|
| **Product function** | |


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| | |
|---|---|
| • removable terminal for auxiliary and control circuit | No |
| **Type of electrical connection** | |
| • for main current circuit | screw-type terminals |
| • for auxiliary and control current circuit | screw-type terminals |
| **Arrangement of electrical connectors for main current circuit** | Top and bottom |
| **Type of connectable conductor cross-sections** | |
| • for main contacts | |
| — single or multi-stranded | 2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²) |
| — finely stranded with core end processing | 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² |
| • at AWG conductors for main contacts | 2x (16 ... 12), 2x (14 ... 8) |
| **Type of connectable conductor cross-sections** | |
| • for auxiliary contacts | |
| — single or multi-stranded | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • at AWG conductors for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14) |
| **Tightening torque** | |
| • for main contacts with screw-type terminals | 2 ... 2.5 N·m |
| • for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| **Design of screwdriver shaft** | 5 to 6 mm diameter |
| **Design of the thread of the connection screw** | |
| • for main contacts | M4 |
| • of the auxiliary and control contacts | M3 |

## Safety related data:

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

## Display:

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

## Certificates/approvals


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| General Product Approval | | | | For use in hazardous locations | |
|---|---|---|---|---|---|
| CCC | CSA | | UL | ATEX | IECEx |

| Declaration of Conformity | Test Certificates | Shipping Approval | | | |
|---|---|---|---|---|---|
| EG-Konf. | Typprüfbescheinigung/Werkszeugnis | ABS | BUREAU VERITAS | DNV | GL |

| Shipping Approval | | | | other | Railway |
|---|---|---|---|---|---|
| LRS | PRS | RINA | RMRS | Umweltbestätigung | Schwingen/Schocken |

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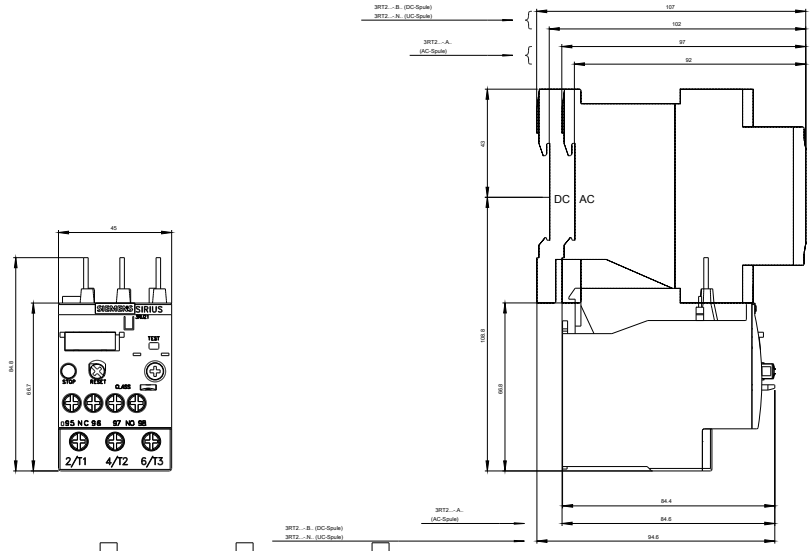
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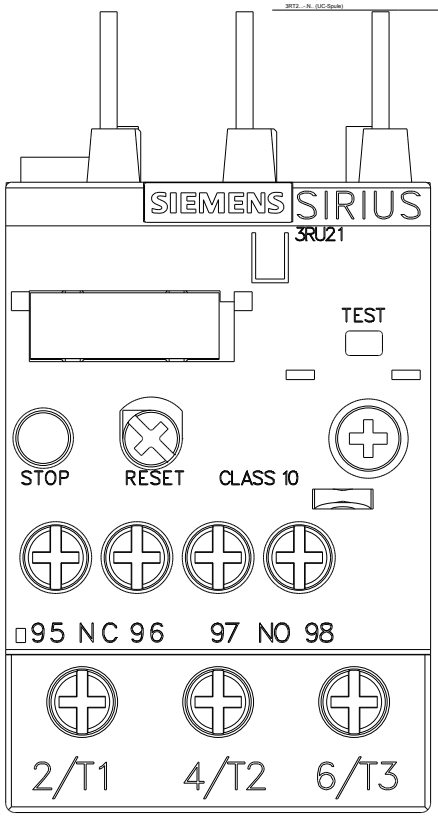
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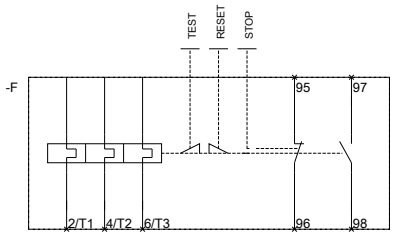

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