SIEMENS

## Product data sheet 3RU2116-1DB0


OVERLOAD RELAY 2.2...3.2 A FOR MOTOR PROTECTION SZ S00,
CLASS 10,
F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET

| General technical data: | | |
|---|---|---|
| **product brand name** | | SIRIUS |
| **Product designation** | | 3RU2 thermal overload relay |
| **Size of overload relay** | | S00 |
| **Size of contactor / can be combined / company-specific** | | S00 |
| **Number of poles / for main current circuit** | | 3 |
| **Product function / removable terminal for auxiliary and control circuit** | | No |
| **Product function** | | |
| • overload protection | | Yes |
| • Phase failure detection | | Yes |
| • Ground fault detection | | No |
| **Product component** | | |
| • Auxiliary switch | | Yes |
| • Trip indicator | | Yes |
| **Insulation voltage / with degree of pollution 3 / Rated value** | V | 690 |
| **Surge voltage resistance / Rated value** | kV | 6 |
| **Protection class IP** | | |
| • of the terminal | | IP20 |
| • on the front | | IP20 |

| | | |
|---|---|---|
| **Protection against electrical shock** | | finger-safe |
| **Installation altitude / at height above sea level / maximum** | m | 2,000 |
| **Shock resistance / acc. to IEC 60068-2-27** | | 8g / 11 ms |
| **Ambient temperature** | | |
| • during transport | °C | -55 … +80 |
| • during storage | °C | -55 … +80 |
| • during operation | °C | -40 … +70 |
| **Relative humidity** | | |
| • during operation | % | 0 … 90 |
| **Active power loss / total / typical** | W | 5.2 |

| **Main circuit:** | | |
|---|---|---|
| **Operating current / Rated value** | A | 3.2 |
| **Operating voltage / Rated value** | V | 690 |
| **Type of voltage / for main current circuit** | | AC/DC |
| **Operating frequency** | | |
| • Rated value | Hz | 50 … 60 |
| **Operating current / at AC-3 / at 400 V / Rated value** | A | 3.2 |
| **Type of assignment** | | 2 |

| **Steuerstromkreis** | | |
|---|---|---|
| **Type of voltage / for auxiliary and control current circuit** | | AC/DC |

| **Auxiliary circuit:** | | |
|---|---|---|
| **Design of the auxiliary switch** | | integrated |
| **Number of NC contacts / for auxiliary contacts** | | 1 |
| **Number of NO contacts / for auxiliary contacts** | | 1 |
| **Number of CO contacts / for auxiliary contacts** | | 0 |
| **Operating current / of the auxiliary contacts** | | |
| • at AC-15 | | |
| • 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 |
| • at DC-13 | | |
| • 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: | | |
|---|---|---|
| **Design of the overload circuit breaker** | | thermal |
| **Trip class** | | CLASS 10 |
| **Adjustable response value current** | | |
| • of the current-dependent overload release | A | 2.2 … 3.2 |

| Safety related data: | | |
|---|---|---|
| **Failure rate [FIT] / with low demand rate / acc. to SN 31920** | FIT | 50 |
| **Proportion of dangerous failures / with low demand rate / acc. to SN 31920** | % | 50 |
| **Proportion of dangerous failures / with high demand rate / acc. to SN 31920** | % | 50 |

| Installation/ mounting/ dimensions: | | |
|---|---|---|
| **Mounting type** | | direct mounting |
| **mounting position** | | any |
| **Depth** | mm | 70 |
| **Height** | mm | 76 |
| **Width** | mm | 45 |

| Connections/ terminals: | | |
|---|---|---|
| **Arrangement of electrical connectors / for main current circuit** | | Top and bottom |
| **Design of the electrical connection** | | |
| • for main current circuit | | screw-type terminals |
| • for auxiliary and control current circuit | | screw-type terminals |
| **Type of connectable conductor cross-section / for main contacts** | | |
| • single or multi-stranded | | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm² |
| • finely stranded | | |
| • with core end processing | | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| **Type of connectable conductor cross-section / for AWG conductors / for main contacts** | | 2x (20 ... 16), 2x (20 ... 18), 2x 12 |
| **Type of connectable conductor cross-section / 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) |
| **Type of connectable conductor cross-section / for AWG conductors / for auxiliary contacts** | | 2x (20 ... 16), 2x (18 ... 14) |

| UL/CSA ratings: | | |
|---|---|---|
| **Full-load current (FLA) / for three-phase AC motor** | | |
| • at 480 V / Rated value | A | 3.2 |

| | | |
|---|---|---|
| • at 600 V / Rated value | A | 3.2 |
| **Contact rating / of the auxiliary contacts / acc. to UL** | | B600 / R300 |

## Certificates/ approvals:

| General Product Approval | | | | For use in hazardous locations | Declaration of Conformity |
|---|---|---|---|---|---|
| CCC | CSA | | UL | ATEX | EG-Konf. |

**Test Certificates**

| | |
|---|---|
| Special Test Certificate | Type Test Certificates/Test Report |

**Shipping Approval**

| | | | | | |
|---|---|---|---|---|---|
| ABS | DNV | GL | LRS | PRS | RINA |

| Shipping Approval | other |
|---|---|
| RMRS | Environmental Confirmations |

## Further information:

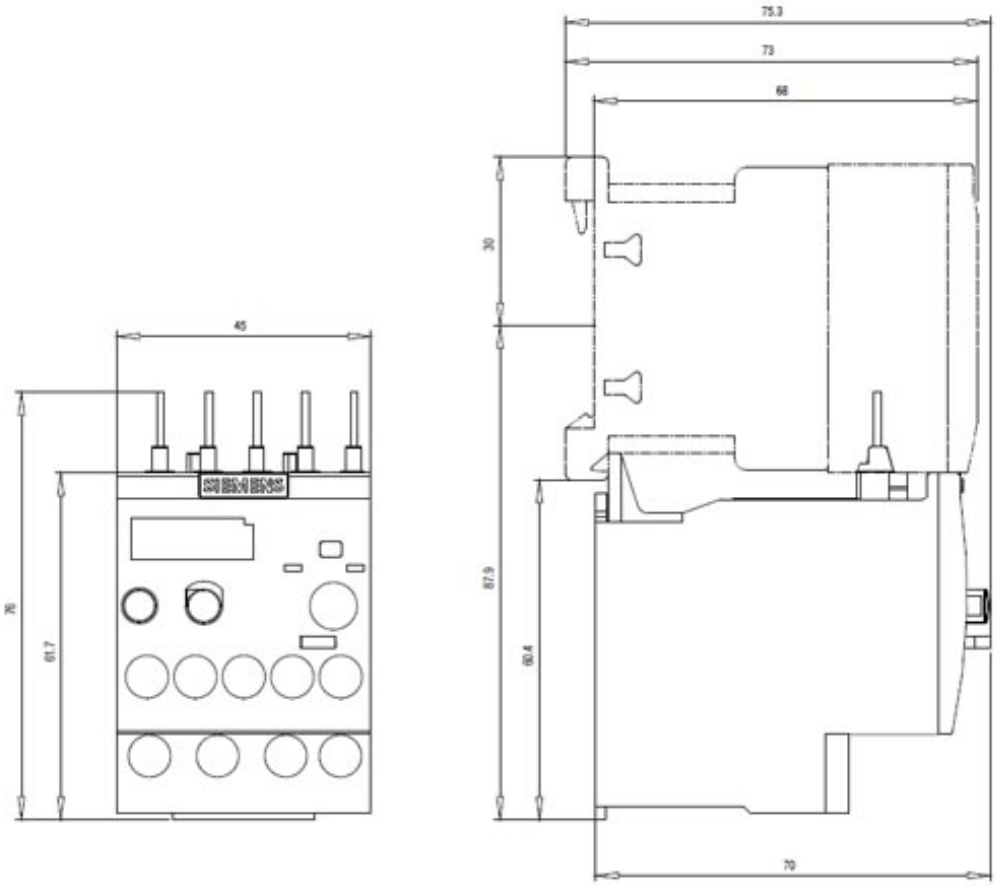
**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

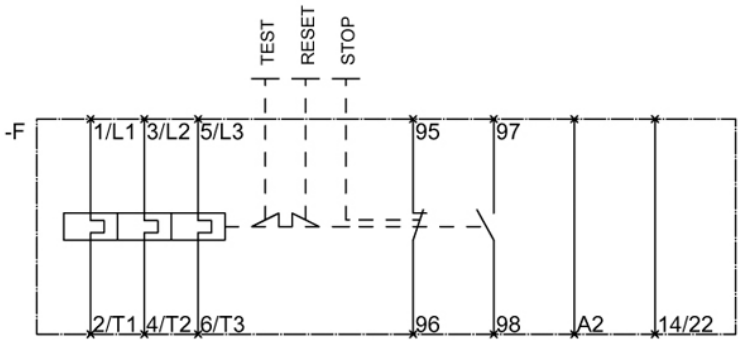
**Industry Mall (Online ordering system)**
http://www.siemens.com/industrymall

**Cax online generator**
http://www.siemens.com/cax

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3RU2116-1DB0/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1DB0



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