SIEMENS

Data sheet

3RU2116-1JB0



OVERLOAD RELAY 7.0...10 A FOR MOTOR PROTECTION SZ S00, 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: | General technical data: | | | | |
| Active power loss total typical | W | 6.1 | | | |
| Insulation voltage | | | | | |
| with degree of pollution 3 Rated value | V | 690 | | | |
| Shock resistance | _ | | | | |
| • acc. to IEC 60068-2-27 | | 8g / 11 ms | | | |
| Surge voltage resistance Rated value | kV | 6 | | | |
| Temperature compensation | °C | -40 +60 | | | |
| Size of contactor can be combined company-specific | | S00 | | | |
| Type of assignment | _ | 2 | | | |
| Protection class IP | _ | | | | |
| • on the front | | IP20 | | | |
| • of the terminal | | IP20 | | | |
| Equipment marking | | | | | |
| • acc. to DIN EN 81346-2 | | F | | | |
| Main circuit: | | | | | |
| Number of poles for main current circuit | | 3 | | | |
| Adjustable response value current of the current- dependent overload release | A | 7 10 | | | |
| Operating voltage | | | | | |
| Rated value | V | 690 | | | |
| at AC-3 Rated value maximum | V | 690 | | | |
| Operating frequency Rated value | Hz | 50 60 | | | |

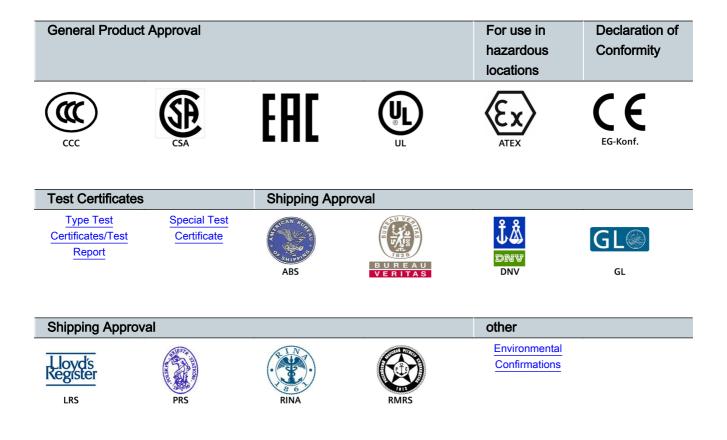
| Operating current Rated value | А | 10 |
|--|----|-----------------------------|
| Operating current | - | |
| • at AC-3 | | |
| — at 400 V Rated value | А | 10 |
| Auxiliary circuit: | | |
| Number of NC contacts | | |
| for auxiliary contacts | | 1 |
| — Note | | for contactor disconnection |
| Number of NO contacts | - | |
| for auxiliary contacts | | 1 |
| — Note | | for message "Tripped" |
| Number of CO contacts | - | |
| for auxiliary contacts | | 0 |
| Design of the auxiliary switch | | integrated |
| Operating current of the auxiliary contacts at AC-15 | | |
| • at 24 V | А | 3 |
| ● at 110 V | А | 3 |
| ● at 120 V | А | 3 |
| ● at 125 V | А | 3 |
| • at 230 V | А | 2 |
| • at 400 V | А | 1 |
| Operating current of the auxiliary contacts at DC-13 | | |
| • at 24 V | А | 2 |
| • at 110 V | А | 0.22 |
| • at 125 V | А | 0.22 |
| • at 220 V | А | 0.11 |
| Protective and monitoring functions: | | |
| Trip class | | CLASS 10 |
| Design of the overload circuit breaker | | thermal |
| UL/CSA ratings: | | |
| Full-load current (FLA) for three-phase AC motor | | |
| • at 480 V Rated value | А | 10 |
| • at 600 V Rated value | А | 10 |
| Contact rating of the auxiliary contacts acc. to UL | | B600 / R300 |
| Installation/ mounting/ dimensions: | | |
| mounting position | | any |
| Mounting type | | direct mounting |
| Height | mm | 76 |
| Width | mm | 45 |
| Depth | mm | 70 |
| Required spacing | | |

| 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:

| 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 | | Top and bottom |
| circuit | | |
| Product function | | |
| removable terminal for auxiliary and control | | No |
| circuit | | |
| 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) |
| for AWG conductors for main contacts | | 2x (20 16), 2x (20 18), 2x 12 |
| 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) |
| for AWG conductors for auxiliary contacts | | 2x (20 16), 2x (18 14) |
| Tightening torque | | |
| for main contacts with screw-type terminals | N∙m | 0.8 1.2 |
| Design of screwdriver shaft | | 5 to 6 mm diameter |
| Design of the thread of the connection screw | | |
| for main contacts | | M3 |

| of the auxiliary and control contacts | | M3 | |
|--|-----|--------------|--|
| Safety related data: | | | |
| Proportion of dangerous failures | | | |
| 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 | У | 2 280 | |
| T1 value for proof test interval or service life acc. to IEC 61508 | У | 20 | |
| Protection against electrical shock | _ | finger-safe | |
| Mechanical data: | | | |
| Size of overload relay | | S00 | |
| 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 | | | |
| • for switching status | | Slide switch | |
| Certificates/ approvals: | | | |



Further information

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

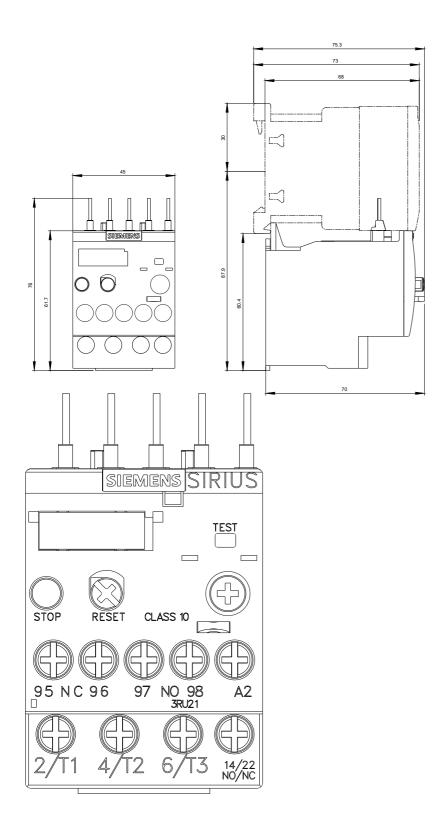
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

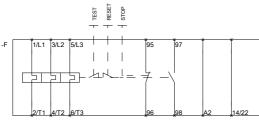
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21161JB0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RU21161JB0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21161JB0&lang=en



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