



## **Electric Automation**

Automation specialists

Reference: 3RU2116-0HB0

OVERLOAD RELAY 0.55...0.80 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET

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| 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                           | 500                         |  |
| 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                        |  |
| 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-<br>dependent overload release | 0.55 0.8 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  | 0.8 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                         |
| 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                                 | 0.8 A           |
| at 600 V rated value                                 | 0.8 A           |
| Contact rating of auxiliary contacts according to UL | B600 / R300     |
| Installation/ mounting/ dimensions:                  |                 |
| Mounting position                                    | any             |
| Mounting type  | direct mounting |
| Height   | 76 mm           |
| Witd>  | 45 mm           |
| Depth  | 70 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   |   |
|--|---|
| 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 (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)           |
| at AWG conductors for main contacts                                | 2x (20 16), 2x (18 14), 2x 12                 |
| 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                        | 0.8 1.2 N·m                                   |
| for auxiliary contacts with screw-type terminals                   | 0.8 1.2 N·m                                   |
| Design of screwdriver shaft  | 5 6 mm diameter                               |
| Design of the thread of the connection screw                       |   |
| for main contacts  | МЗ  |
| of the auxiliary and control contacts                              | МЗ  |
| Safety related data:   |   |
| Failure rate [FIT]   |   |
| with low demand rate acc. to SN 31920                              | 50 FIT  |
| MTTF with high demand rate   | 2 280 у                                       |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y  |
| Display:   |   |
| Display version  |   |
| for switching status   | Slide switch                                  |