

OVERLOAD RELAY 12.5...50 A FOR MOTOR
PROTECTION SIZE S2,
CLASS 20E FOR MOUNTING ONTO CONTACTORS MAIN
CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW
TERMINAL MANUAL-AUTOMATIC-RESET

General technical data:

| | | |
|--|----|----------------------------|
| product brand name | | SIRIUS |
| Product designation | | solid-state overload relay |
| Size of overload relay | | S2 |
| Number of poles / for main current circuit | | 3 |
| Product function / removable terminal for auxiliary and control circuit | | Yes |
| 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 | | IP00 |
| • on the front | | IP20 |
| Installation altitude / at height above sea level / maximum | m | 2,000 |

| | | |
|---|----|---|
| Vibration resistance | | 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles |
| Ambient temperature | | |
| • during transport | °C | -40 ... +80 |
| • during storage | °C | -40 ... +80 |
| • during operation | °C | -25 ... +60 |
| Relative humidity | | |
| • during operation | % | 0 ... 95 |
| EMI immunity / acc. to IEC 60947-1 | | corresponds to degree of severity 3 |
| EMC emitted interference / acc. to IEC 60947-1 | | CISPR 11, environment B (residential area) |
| Electrostatic discharge / acc. to IEC 61000-4-2 | | 6 kV contact discharge / 8 kV air discharge |
| Field-bound parasitic coupling / acc. to IEC 61000-4-3 | | 10 V/m |
| Conducted interference BURST / acc. to IEC 61000-4-4 | | 2 kV (power ports), 1 kV (signal ports) |
| Conducted interference conductor-earth SURGE | | 2 kV (line to ground) |
| Conducted interference conductor-conductor SURGE | | 1 kV (line to line) |
| Conducted interference as high-frequency radiation / acc. to IEC 61000-4-6 | | 10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz |
| Type of protection | | II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p] |
| Active power loss / total / typical | W | 1.8 |
| Size of contactor / can be combined / company-specific | | S2 |

| | | |
|---|---|------|
| Main circuit: | | |
| Operating voltage / Rated value | V | 690 |
| Type of voltage / for main current circuit | | AC |
| Operating current | | |
| • at AC-3 / at 400 V / Rated value | A | 50 |
| • of the auxiliary contacts | | |
| • at AC-15 | | |
| • at 24 V | A | 4 |
| • at 110 V | A | 4 |
| • at 120 V | A | 4 |
| • at 125 V | A | 4 |
| • at 230 V | A | 3 |
| • at DC-13 | | |
| • at 24 V | A | 2 |
| • at 60 V | A | 0.55 |
| • at 110 V | A | 0.3 |
| • at 125 V | A | 0.3 |
| • at 220 V | A | 0.11 |
| Type of assignment | | 2 |

Control circuit/ Control:

| | | |
|---|----|--|
| Type of voltage supply / via input/output link master | | No |
| 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 |
| Design of the fuse link / for short-circuit protection of the auxiliary switch / required | | fuse gG: 6 A |
| Protective and monitoring functions: | | |
| Design of the overload circuit breaker | | electronic |
| Trip class | | CLASS 20E |
| Adjustable response value current | | |
| • of the current-dependent overload release | A | 12.5 ... 50 |
| Safety related data: | | |
| Proportion of dangerous failures | | |
| • with low demand rate / acc. to SN 31920 | % | 35 |
| Installation/ mounting/ dimensions: | | |
| Mounting type | | direct mounting |
| mounting position | | any |
| Depth | mm | 104 |
| Height | mm | 99 |
| Width | mm | 55 |
| Arrangement of electrical connectors / for main current circuit | | Top and bottom |
| Connections/ terminals: | | |
| 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 | | 1x (1 ... 50 mm²), 2x (1 ... 35 mm²) |
| • finely stranded | | |
| • with core end processing | | 1x (1 ... 35 mm²), 2x (1 ... 25 mm²) |
| • for AWG conductors / for main contacts | | 2x (18 ... 2), 1x (18 ... 1) |
| • for auxiliary contacts | | |
| • single or multi-stranded | | 1x (0,5 ... 4 mm²), 2x (0,5 ... 2,5 mm²) |
| • finely stranded | | |

| | | |
|--|--------|--|
| <ul style="list-style-type: none"> • with core end processing • for AWG conductors / for auxiliary contacts | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 1x (20 ... 14), 2x (20 ... 14) |
| Full-load current (FLA) / for three-phase AC motor <ul style="list-style-type: none"> • at 480 V / Rated value • at 600 V / Rated value | A A | 50 50 |

UL/CSA ratings:

Contact rating / of the auxiliary contacts / acc. to UL

B600 / R300

Certificates/ approvals:

General Product Approval



[Type Test
Certificates/Test
Report](#)

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

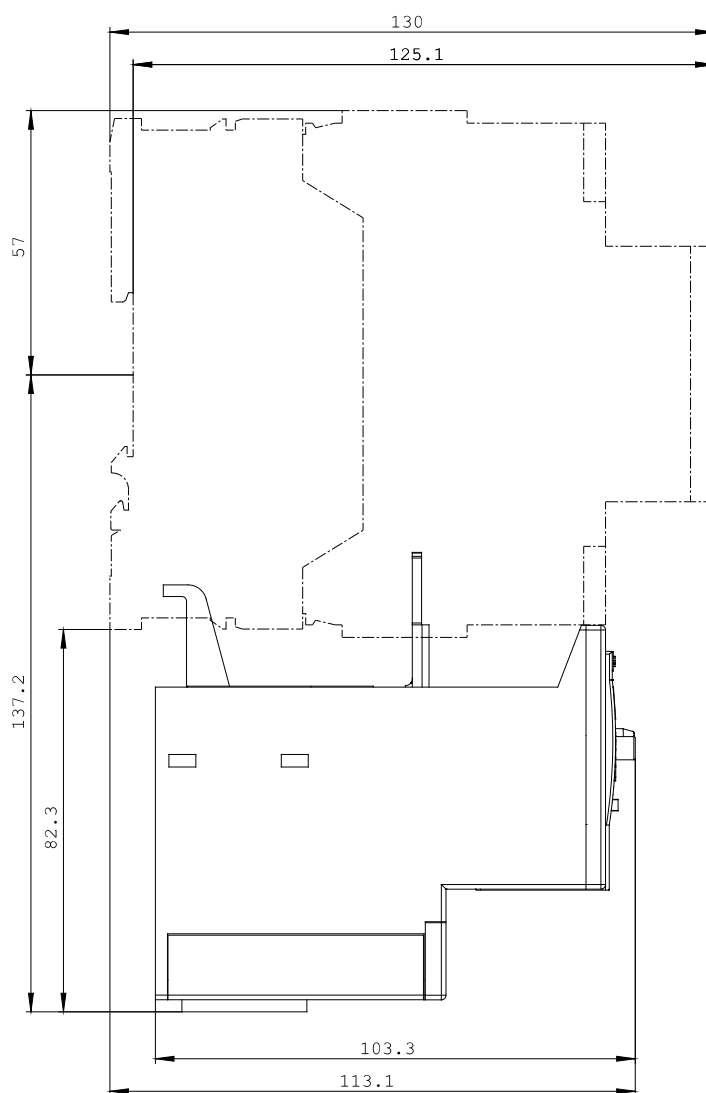
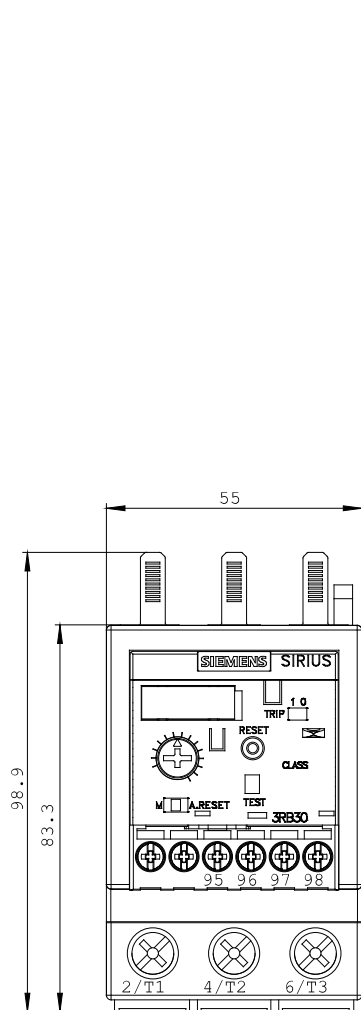
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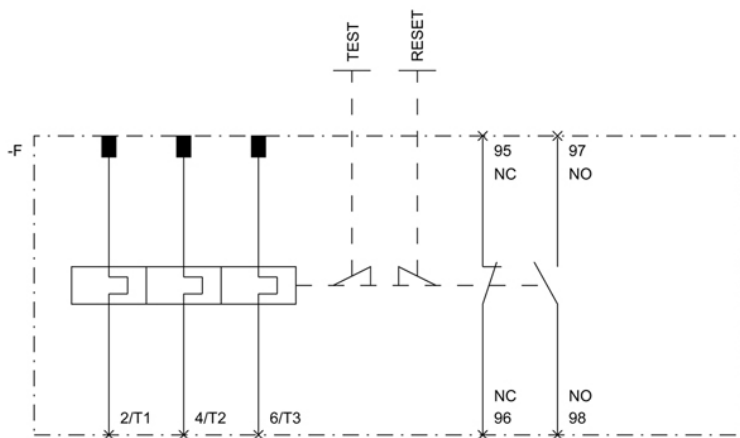
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RB3036-2UB0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RB3036-2UB0





last change:

Dec 3, 2014