









Overload relay 0.32...1.25 A Electronic For motor protection Size S0, Class 5...30
 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-
 Reset Internal ground fault detection

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|--|--|
| product brand name | SIRIUS |
| product designation | solid-state overload relay |
| product type designation | 3RB3 |
| General technical data | |
| size of overload relay | S0 |
| size of contactor can be combined company-specific | S0 |
| power loss [W] for rated value of the current at AC in hot operating state | 0.1 W |
| • per pole | 0.03 W |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for protective separation | |
| • in networks with ungrounded star point between auxiliary and auxiliary circuit | 300 V |
| • in networks with grounded star point between auxiliary and auxiliary circuit | 300 V |
| • in networks with ungrounded star point between main and auxiliary circuit | 600 V |
| • in networks with grounded star point between main and auxiliary circuit | 690 V |
| shock resistance | 15g / 11 ms |
| • according to IEC 60068-2-27 | 15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 9g / 11 ms |
| vibration resistance | 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles |
| thermal current | 1.25 A |
| recovery time after overload trip | |
| • with automatic reset typical | 3 min |
| • with remote-reset | 0 min |
| • with manual reset | 0 min |
| reference code according to IEC 81346-2 | F |
| Substance Prohibitance (Date) | 10/01/2009 |
| SVHC substance name | Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol - 119-47-1 |
| Net Weight | 0.26 kg |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -40 ... +80 °C |
| • during transport | -40 ... +80 °C |

| | |
|---|--|
| temperature compensation | -25 ... +60 °C |
| relative humidity during operation | 10 ... 95 % |
| Main circuit | |
| number of poles for main current circuit | 3 |
| adjustable current response value current of the current-dependent overload release | 0.3 ... 1.25 A |
| operating voltage | |
| • rated value | 690 V |
| • for remote-reset function at DC | 24 V |
| • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current rated value | 1.25 A |
| operational current at AC-3e at 400 V rated value | 1.25 A |
| operating power | |
| • for 3-phase motors at 400 V at 50 Hz | 0.12 ... 0.37 kW |
| • for AC motors at 500 V at 50 Hz | 0.12 ... 0.55 kW |
| • for AC motors at 690 V at 50 Hz | 0.18 ... 0.75 kW |
| 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 |
| operational current of auxiliary contacts at AC-15 | |
| • at 24 V | 4 A |
| • at 110 V | 4 A |
| • at 120 V | 4 A |
| • at 125 V | 4 A |
| • at 230 V | 3 A |
| operational current of auxiliary contacts at DC-13 | |
| • at 24 V | 2 A |
| • at 60 V | 0.55 A |
| • at 110 V | 0.3 A |
| • at 125 V | 0.3 A |
| • at 220 V | 0.11 A |
| Protective and monitoring functions | |
| trip class | CLASS 5E, 10E, 20E and 30E adjustable |
| design of the overload release | electronic |
| response value current of the grounding protection minimum | 0.75 x IMotor |
| response time of the grounding protection in settled state | 1 000 ms |
| operating range of the grounding protection relating to current set value | |
| • minimum | IMotor > lower current setting value |
| • maximum | IMotor < upper current setting value x 3.5 |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| • at 480 V rated value | 1.25 A |
| • at 600 V rated value | 1.25 A |
| contact rating of auxiliary contacts according to UL | B600 / R300 |
| Short-circuit protection | |
| design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 35 A, RK5: 6 A |
| — with type of coordination 2 required | gG: 6 A |
| • for short-circuit protection of the auxiliary switch required | fuse gG: 6 A |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | Contactor mounting |

| | | | | | |
|---|---|---|---|---|---|
| height | 87 mm | | | | |
| width | 45 mm | | | | |
| depth | 84 mm | | | | |
| Connections/ Terminals | | | | | |
| product component removable terminal for auxiliary and control circuit | Yes | | | | |
| type of electrical connection | screw-type terminals | | | | |
| <ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit | screw-type terminals | | | | |
| arrangement of electrical connectors for main current circuit | Top and bottom | | | | |
| type of connectable conductor cross-sections for main contacts | | | | | |
| <ul style="list-style-type: none"> solid stranded solid or stranded finely stranded with core end processing | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) 2x 10 mm ² 1x (1 ... 10 mm ²), 2x (1 ... 10 mm ²) 1x (1 ... 6 mm ²), 2 x (1 ... 6 mm ²), 1x 10 mm ² | | | | |
| type of connectable conductor cross-sections | | | | | |
| <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts | 1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0,5 ... 4 mm ²), 2x (0,5 ... 2,5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 1x (20 ... 14), 2x (20 ... 14) | | | | |
| tightening torque | | | | | |
| <ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals | 2 ... 2.5 N·m 0.8 ... 1.2 N·m | | | | |
| design of screwdriver shaft | Diameter 5 to 6 mm | | | | |
| size of the screwdriver tip | Pozidriv PZ 2 | | | | |
| design of the thread of the connection screw | | | | | |
| <ul style="list-style-type: none"> for main contacts of the auxiliary and control contacts | M4 M3 | | | | |
| Electrical Safety | | | | | |
| protection class IP on the front according to IEC 60529 | IP20 | | | | |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front | | | | |
| Communication/ Protocol | | | | | |
| type of voltage supply via input/output link master | No | | | | |
| Electromagnetic compatibility | | | | | |
| conducted interference | | | | | |
| <ul style="list-style-type: none"> due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-6 | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 2 kV (line to earth) corresponds to degree of severity 3 1 kV (line to line) corresponds to degree of severity 3 10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz | | | | |
| field-based interference according to IEC 61000-4-3 | 10 V/m | | | | |
| electrostatic discharge according to IEC 61000-4-2 | 6 kV contact discharge / 8 kV air discharge | | | | |
| Display | | | | | |
| display version for switching status | Slide switch | | | | |
| Approvals Certificates | | | | | |
| General Product Approval | EMV | | | | |
|  |  |  |  |  |  |
| EMV | For use in hazardous locations | Test Certificates | Maritime application | | |

KC


[Type Test Certificates/Test Report](#)
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Maritime application

other


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Environment

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Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB3123-4NB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4NB0>

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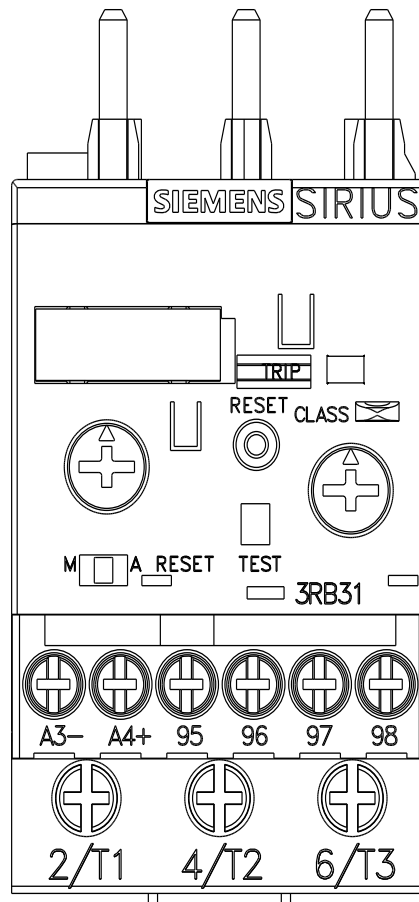
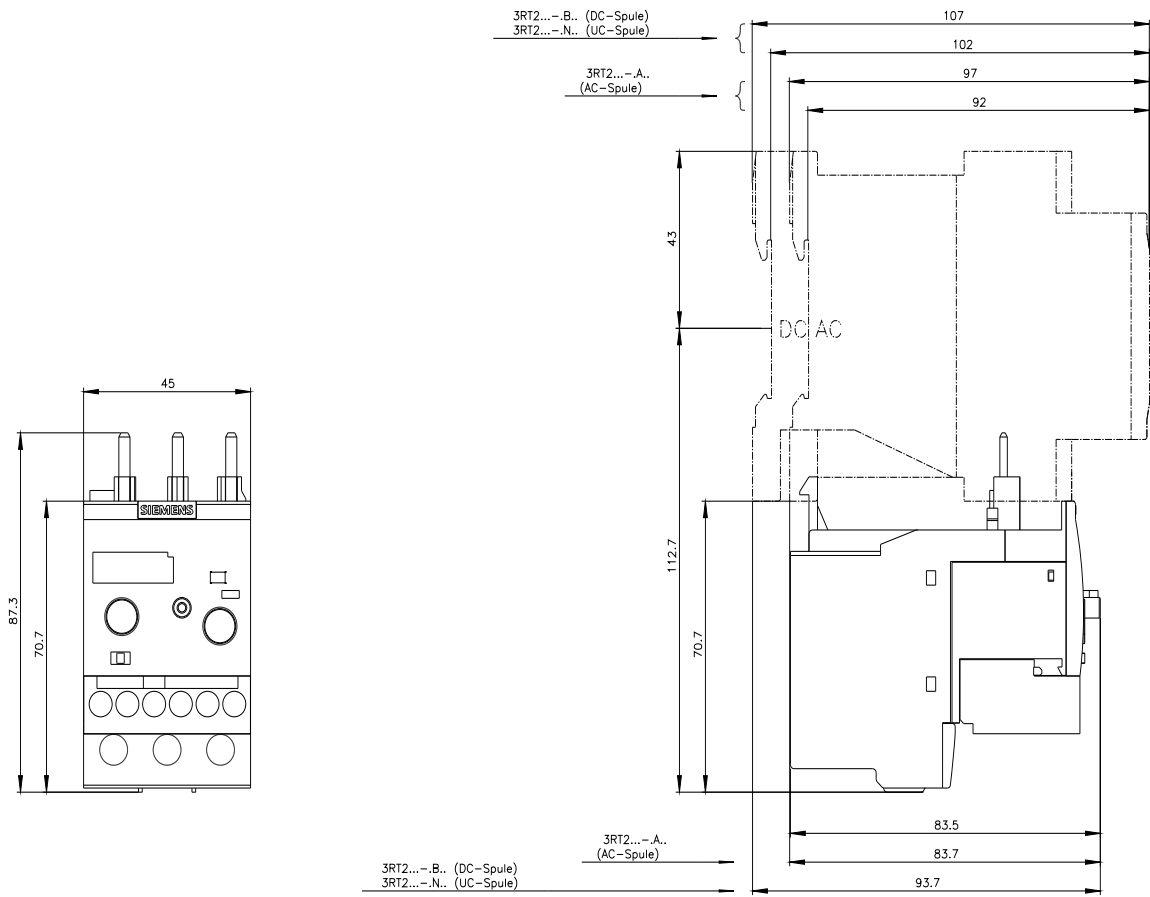
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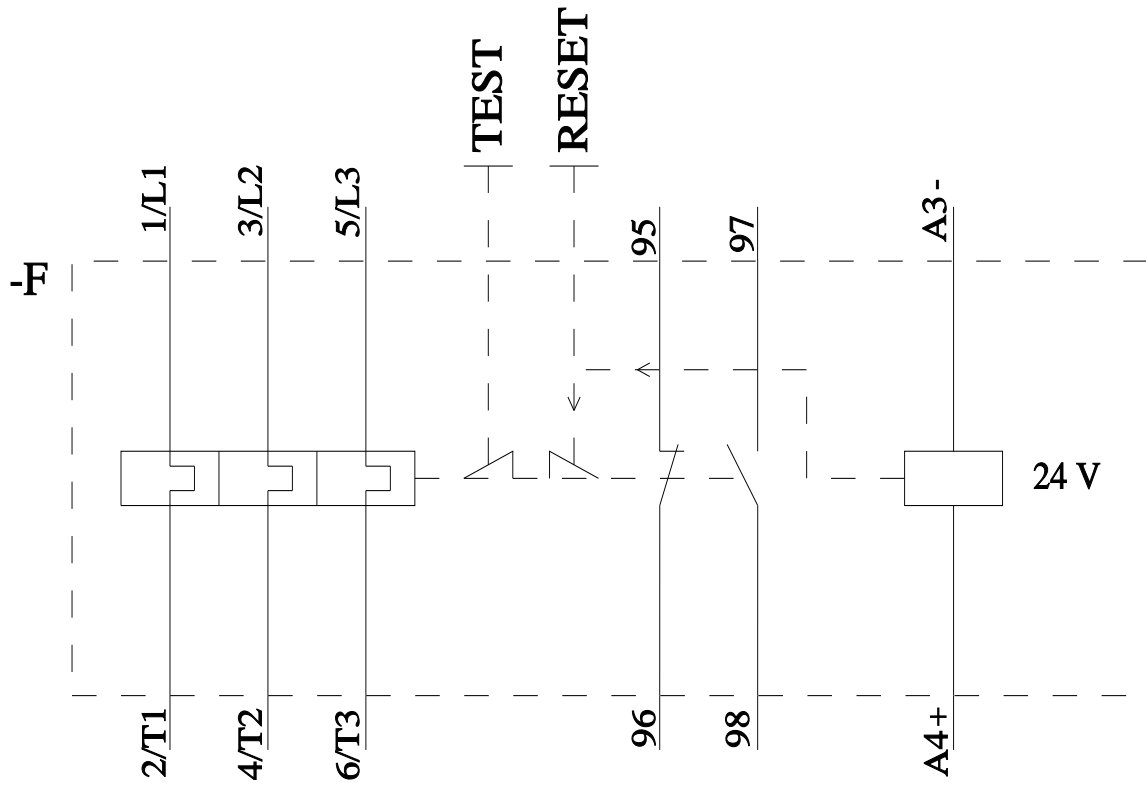
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Characteristic curves

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