














Overload relay 0.11...0.16 A Thermal For motor protection Size S00, Class 10
Stand-alone installation Main circuit: Screw Auxiliary circuit: Screw Manual-
Automatic-Reset

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|--|------------------------|
| product brand name | SIRIUS |
| product designation | thermal overload relay |
| product type designation | 3RU2 |
| General technical data | |
| size of overload relay | S00 |
| size of contactor can be combined company-specific | S00 |
| power loss [W] for rated value of the current at AC in hot operating state | 4.8 W |
| • per pole | 1.6 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 | 440 V |
| • in networks with grounded star point between auxiliary and auxiliary circuit | 440 V |
| • in networks with ungrounded star point between main and auxiliary circuit | 440 V |
| • in networks with grounded star point between main and auxiliary circuit | 440 V |
| shock resistance according to IEC 60068-2-27 | 8g / 11 ms |
| reference code according to IEC 81346-2 | F |
| Substance Prohibitance (Date) | 10/01/2009 |
| SVHC substance name | Lead - 7439-92-1 |
| Weight | 0.18 kg |
| 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 |
| relative humidity during operation | 10 ... 95 % |
| Environmental footprint | |
| global warming potential [CO2 eq] total | 39.9 kg |
| global warming potential [CO2 eq] during manufacturing | 0.978 kg |
| global warming potential [CO2 eq] during sales | 0.043 kg |
| global warming potential [CO2 eq] during operation | 39 kg |
| global warming potential [CO2 eq] after end of life | -0.045 kg |
| Main circuit | |
| number of poles for main current circuit | 3 |
| adjustable current response value current of the current- | 0.11 ... 0.16 A |

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| dependent overload release | |
| operating voltage | |
| • rated value | 690 V |
| • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current rated value | 0.16 A |
| operational current at AC-3e at 400 V rated value | 0.16 A |
| operating power | |
| • at AC-3 | |
| — at 400 V rated value | 0.04 kW |
| — at 500 V rated value | 0.06 kW |
| — at 690 V rated value | 0.06 kW |
| • at AC-3e | |
| — at 400 V rated value | 0.04 kW |
| — at 500 V rated value | 0.06 kW |
| — at 690 V rated value | 0.06 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 | 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 |
| • at 690 V | 0.75 A |
| operational current of auxiliary contacts at DC-13 | |
| • at 24 V | 2 A |
| • at 60 V | 0.3 A |
| • at 110 V | 0.22 A |
| • at 125 V | 0.22 A |
| • at 220 V | 0.11 A |
| contact rating of auxiliary contacts according to UL | B600 / R300 |
| Protective and monitoring functions | |
| trip class | CLASS 10 |
| design of the overload release | thermal |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| • at 480 V rated value | 0.2 A |
| • at 600 V rated value | 0.2 A |
| Short-circuit protection | |
| design of the fuse link | |
| • for short-circuit protection of the auxiliary switch required | fuse gG: 6 A, quick: 10 A |
| Installation/ mounting/ dimensions | |
| mounting position | for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable |
| fastening method | stand-alone installation |
| height | 89 mm |
| width | 45 mm |
| depth | 80 mm |
| Connections/ Terminals | |
| product component removable terminal for auxiliary and control circuit | No |
| type of electrical connection | |
| • for main current circuit | screw-type terminals |

| | | |
|---|--|--|
| <ul style="list-style-type: none">• 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 | | |
| <ul style="list-style-type: none">• for main contacts<ul style="list-style-type: none">— solid or stranded— finely stranded with core end processing• for AWG cables for main contacts | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm² 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 | |
| type of connectable conductor cross-sections | | |
| <ul style="list-style-type: none">• for auxiliary contacts<ul style="list-style-type: none">— solid or stranded— finely stranded with core end processing• for AWG cables for auxiliary contacts | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14) | |
| tightening torque | | |
| <ul style="list-style-type: none">• for main contacts with screw-type terminals• for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m 0.8 ... 1.2 N·m | |
| design of screwdriver shaft | Diameter 5 ... 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 | M3 M3 | |
| Safety related data | | |
| failure rate [FIT] with low demand rate according to SN 31920 | 50 FIT | |
| MTTF with high demand rate | 2 280 a | |
| IEC 61508 | | |
| T1 value | | |
| <ul style="list-style-type: none">• for proof test interval or service life according to IEC 61508 | 20 a | |
| 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 | |
| Display | | |
| display version for switching status | Slide switch | |
| Approvals Certificates | | |
| General Product Approval | | |
| For use in hazardous locations | | |
| <div><div> CCC</div><div> EG-Konf.</div><div></div><div> UL</div><div></div><div> IECEX</div></div> | | |
| For use in hazardous locations | Test Certificates | Marine / Shipping |
| <div> ATEX</div> | <div>Miscellaneous</div> <div>Special Test Certificate</div> <div>Type Test Certificates/Test Report</div> | <div> ABS</div> <div> BUREAU VERITAS</div> |
| Marine / Shipping | | other |
| <div> DNV</div> <div> LRS</div> <div> PRS</div> <div> RINA</div> <div> RMRS</div> | Miscellaneous | |
| other | Railway | Environment |



Further information

Information on the packaging

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

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=3RU2116-0AB1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0AB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB1>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0AB1&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB1/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0AB1&objecttype=14&gridview=view1>

