



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

| | |
|--------------------------|------------------------|
| 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 |
| <ul style="list-style-type: none"> 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 safe isolation in networks with grounded star point | |
| <ul style="list-style-type: none"> between auxiliary and auxiliary circuit between auxiliary and auxiliary circuit between main and auxiliary circuit between main and auxiliary circuit | 440 V 440 V 440 V 440 V |
| shock resistance according to IEC 60068-2-27 | 8g / 11 ms |
| type of protection according to ATEX directive 2014/34/EU | Ex II (2) GD |
| certificate of suitability according to ATEX directive 2014/34/EU | DMT 98 ATEX G 001 |
| reference code according to IEC 81346-2 | F |
| Substance Prohibitance (Date) | 10/01/2009 |

Ambient conditions

| | |
|--|--|
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| <ul style="list-style-type: none"> during operation during storage during transport | -40 ... +70 °C -55 ... +80 °C -55 ... +80 °C |
| temperature compensation | -40 ... +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 | 0.11 ... 0.16 A |
| operating voltage | |
| <ul style="list-style-type: none"> rated value at AC-3e rated value maximum | 690 V 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 | |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> at 400 V rated value at 500 V rated value at 690 V rated value at AC-3e <ul style="list-style-type: none"> at 400 V rated value at 500 V rated value at 690 V rated value | 0.04 kW 0.06 kW 0.06 kW 0.04 kW 0.06 kW 0.06 kW |
| Auxiliary circuit | |
| design of the auxiliary switch | integrated |
| number of NC contacts for auxiliary contacts | 1 |
| <ul style="list-style-type: none"> note | for contactor disconnection |
| number of NO contacts for auxiliary contacts | 1 |
| <ul style="list-style-type: none"> note | for message "Tripped" |
| number of CO contacts for auxiliary contacts | 0 |
| operational current of auxiliary contacts at AC-15 | |
| <ul style="list-style-type: none"> at 24 V at 110 V at 120 V at 125 V at 230 V at 400 V at 690 V | 3 A 3 A 3 A 3 A 2 A 1 A 0.75 A |
| operational current of auxiliary contacts at DC-13 | |
| <ul style="list-style-type: none"> at 24 V at 60 V at 110 V at 125 V at 220 V | 2 A 0.3 A 0.22 A 0.22 A 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 | |
| <ul style="list-style-type: none"> at 480 V rated value at 600 V rated value | 0.16 A 0.16 A |
| Short-circuit protection | |
| design of the fuse link | |
| <ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required | fuse gG: 6 A, quick: 10 A |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | Contactor mounting |
| height | 76 mm |
| width | 45 mm |
| depth | 70 mm |
| Connections/ Terminals | |
| product component removable terminal for auxiliary and control circuit | No |
| type of electrical connection | |
| <ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit | screw-type terminals 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 at 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 • at AWG cables for auxiliary contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 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

| | |
|---|--|
| proportion of dangerous failures | |
| <ul style="list-style-type: none"> • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 | 50 % 50 % |
| failure rate [FIT] with low demand rate according to SN 31920 | 50 FIT |
| MTTF with high demand rate | 2 280 a |
| T1 value for proof test interval or service life according to IEC 61508 | 20 a |
| 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 |
|--------------------------------------|--------------|

Certificates/ approvals

| | |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|



[Confirmation](#)



| | | | |
|--------------------------------|---------------------------|-------------------|-------------------|
| For use in hazardous locations | Declaration of Conformity | Test Certificates | Marine / Shipping |
|--------------------------------|---------------------------|-------------------|-------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



| | |
|-------|---------|
| other | Railway |
|-------|---------|

[Confirmation](#)

[Vibration and Shock](#)

Further information

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=3RU2116-0AB0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0AB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0AB0&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0AB0&objecttype=14&gridview=view1>



