



Thermistor motor protection relay Compact evaluation unit, 17.5 mm enclosure, spring-type terminals, 1 changeover contact, US = 24 V-240 V AC/DC, Auto RESET, suitable for bimetallic switch, supply =output voltage, 1 LED (tripped)

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| product brand name | SIRIUS |
| product category | SIRIUS 3RN2 thermistor motor protection |
| product designation | Thermistor motor protection relay |
| design of the product | Compact evaluation unit, suitable for bimetallic switch (terminal A1 jumpered with root of changeover contact) |
| product type designation | 3RN2 |
| General technical data | |
| product function | thermistor motor protection |
| display version LED | Yes |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state | 0.9 W |
| • at DC in hot operating state | 0.9 W |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V |
| degree of pollution | 3 |
| surge voltage resistance rated value | 4 kV |
| protection class IP | IP20 |
| shock resistance acc. to IEC 60068-2-27 | 11g / 15 ms |
| vibration resistance acc. to IEC 60068-2-6 | 10 ... 55 Hz: 0.35 mm |
| mechanical service life (switching cycles) typical | 10 000 000 |
| electrical endurance (switching cycles) at AC-15 at 230 V typical | 100 000 |
| thermal current of the switching element with contacts maximum | 5 A |
| reference code acc. to IEC 81346-2 | K |
| Substance Prohibitance (Date) | 28.05.2009 00:00:00 |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage at AC | |
| • at 50 Hz rated value | 24 ... 240 V |
| • at 60 Hz rated value | 24 ... 240 V |
| control supply voltage at DC | |
| • rated value | 24 ... 240 V |
| operating range factor control supply voltage rated value at DC | |
| • initial value | 0.85 |
| • full-scale value | 1.1 |
| operating range factor control supply voltage rated value at AC at 50 Hz | |
| • initial value | 0.85 |
| • full-scale value | 1.1 |

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| operating range factor control supply voltage rated value at AC at 60 Hz | |
| <ul style="list-style-type: none"> initial value full-scale value | 0.85 1.1 |
| inrush current peak | |
| <ul style="list-style-type: none"> at 24 V at 240 V | 0.3 A 8 A |
| duration of inrush current peak | |
| <ul style="list-style-type: none"> at 24 V at 240 V | 0.15 ms 0.15 ms |
| Measuring circuit | |
| buffering time in the event of power failure minimum | 40 ms |
| Precision | |
| relative metering precision | 9 % |
| Auxiliary circuit | |
| material of switching contacts | AgSnO ₂ |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 1 |
| Main circuit | |
| operating frequency rated value | 50 ... 60 Hz |
| Outputs | |
| ampacity of the output relay at AC-15 at 250 V at 50/60 Hz | 3 A |
| ampacity of the output relay at DC-13 | |
| <ul style="list-style-type: none"> at 24 V at 125 V | 1 A 0.2 A |
| continuous current of the DIAZED fuse link of the output relay | 6 A |
| Electromagnetic compatibility | |
| conducted interference | |
| <ul style="list-style-type: none"> due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 | 2 kV (power ports) / 1 kV (signal ports) 2 kV (line to ground) 1 kV (line to line) |
| electrostatic discharge acc. to IEC 61000-4-2 | 6 kV contact discharge / 8 kV air discharge |
| Galvanic isolation | |
| design of the electrical isolation | galvanic isolation |
| galvanic isolation | |
| <ul style="list-style-type: none"> between input and output between the voltage supply and other circuits | Yes No |
| Connections/ Terminals | |
| product component removable terminal for auxiliary and control circuit | Yes |
| type of electrical connection | Push-in terminal |
| <ul style="list-style-type: none"> for auxiliary and control circuit | spring-loaded terminals (push-in) |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing at AWG cables solid at AWG cables stranded | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 4 mm ² 20 ... 12 20 ... 12 |
| connectable conductor cross-section | |
| <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 4 mm ² |
| AWG number as coded connectable conductor cross section | |
| <ul style="list-style-type: none"> solid stranded | 20 ... 12 20 ... 12 |
| Installation/ mounting/ dimensions | |

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| mounting position | any |
| fastening method | screw and snap-on mounting onto 35 mm standard mounting rail |
| height | 100 mm |
| width | 17.5 mm |
| depth | 90 mm |
| required spacing | |
| <ul style="list-style-type: none"> ● with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm ● for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — at the side 0 mm — downwards 0 mm ● for live parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm | |

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| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| <ul style="list-style-type: none"> ● during operation -25 ... +60 °C ● during storage -40 ... +85 °C ● during transport -40 ... +85 °C | |
| relative humidity during operation | 70 % |

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| Certificates/ approvals | | |
| General Product Approval | EMC | Declaration of Conformity |



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|----------------------------------|--------------------------|--------------------------|--------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|----------------------------------|--------------------------|--------------------------|--------------|

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

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=3RN2000-2AW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RN2000-2AW30>

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

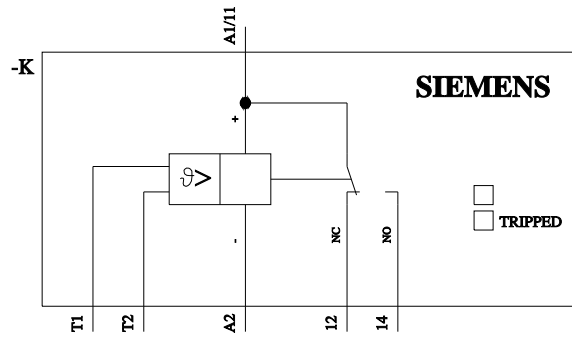
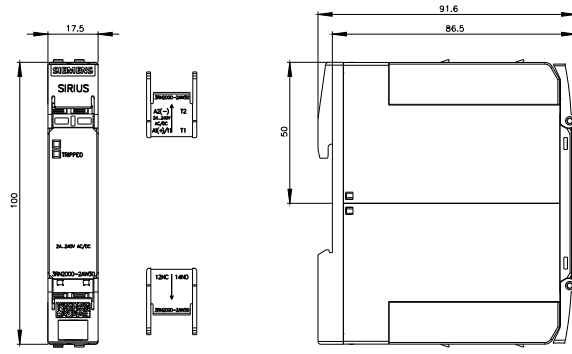
<https://support.industry.siemens.com/cs/ww/en/ps/3RN2000-2AW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RN2000-2AW30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RN2000-2AW30/manual>



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