SIEMENS

## Data sheet 3UG4621-1AA30

Digital monitoring relay Current monitoring, 22.5 mm from 2-500 mA AC/DC 0vershoot and undershoot Supply voltage: 24 V AC/DC 50 to 60 Hz DC and AC without galvanic isolation to measuring circuit ON delay and noise pulses delay 0.1 to 20 s Hysteresis 0.1 to 250 mA 1 change-over contact with or without fault buffer screw terminal Successor product for 3UG3521-1AC..

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Current monitoring relay with digital setting |
| **product type designation** | 3UG4 |
| **General technical data** | |
| **product function** | Current monitoring relay |
| **design of the display** | LCD |
| **insulation voltage for overvoltage category III according to IEC 60664** | |
| ● with degree of pollution 3 rated value | 690 V |
| **degree of pollution** | 3 |
| **surge voltage resistance rated value** | 4 kV |
| **maximum permissible voltage for safe isolation** | |
| ● between auxiliary and auxiliary circuit | 300 V |
| ● between control and auxiliary circuit | 300 V |
| **protection class IP** | IP20 |
| **shock resistance according to IEC 60068-2-27** | sinusoidal half-wave 15g / 11 ms |
| **vibration resistance according to IEC 60068-2-6** | 1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g |
| **mechanical service life (operating cycles) typical** | 10 000 000 |
| **electrical endurance (operating cycles) at AC-15 at 230 V typical** | 100 000 |
| **thermal current of the switching element with contacts maximum** | 5 A |
| **reference code according to IEC 81346-2** | K |
| **relative repeat accuracy** | 1 % |
| **Substance Prohibitance (Date)** | 05/01/2012 |
| **Product Function** | |
| **product function** | |
| ● overcurrent detection 1 phase | Yes |
| ● overcurrent detection 3 phase | No |
| ● undercurrent detection 1 phase | Yes |
| ● undercurrent detection 3 phases | No |
| ● overcurrent detection DC | Yes |
| ● undercurrent detection DC | Yes |
| ● current window recognition DC | Yes |
| ● voltage window recognition 1 phase | No |
| ● voltage window recognition 3 phase | No |
| ● adjustable open/closed-circuit current principle | Yes |
| ● external reset | Yes |
| ● auto-RESET | Yes |
| **Supply voltage** | |
| **type of voltage of the supply voltage** | AC/DC |
| **supply voltage 1 at AC** | |


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| | |
|---|---|
| ● at 50 Hz rated value | 24 V |
| ● at 50 Hz | 20.4 ... 26.4 V |
| ● at 60 Hz rated value | 24 V |
| ● at 60 Hz | 20.4 ... 26.4 V |
| **supply voltage 1 at DC** | 20.4 ... 26.4 V |
| **supply voltage 1 at DC rated value** | 24 V |
| **Measuring circuit** | |
| **type of current for monitoring** | AC/DC |
| **measurable current** | 0.003 ... 0.6 A |
| **measurable line frequency** | 40 ... 500 Hz |
| **adjustable current response value current** | |
| ● 1 | 0.003 ... 0.5 A |
| ● 2 | 0.003 ... 0.5 A |
| **adjustable response delay time** | |
| ● when starting | 0.1 ... 20 s |
| ● with lower or upper limit violation | 0.1 ... 20 s |
| **adjustable switching hysteresis for measured current value** | 0.1 ... 250 mA |
| **buffering time in the event of power failure minimum** | 10 ms |
| **accuracy of digital display** | +/-1 digit |
| **relative temperature-related measurement deviation** | 5 % |
| **internal resistance of the measuring circuit** | 500 mΩ |
| **Precision** | |
| **relative metering precision** | 5 % |
| **temperature drift per °C** | 0.1 %/°C |
| **Auxiliary circuit** | |
| number of NC contacts delayed switching | 0 |
| number of NO contacts delayed switching | 0 |
| number of CO contacts delayed switching | 1 |
| **operating frequency with 3RT2 contactor maximum** | 5 000 1/h |
| **Main circuit** | |
| **number of poles for main current circuit** | 1 |
| operating voltage rated value | 24 ... 24 V |
| **ampacity of the output relay at AC-15** | |
| ● at 250 V at 50/60 Hz | 3 A |
| ● at 400 V at 50/60 Hz | 3 A |
| **ampacity of the output relay at DC-13** | |
| ● at 24 V | 1 A |
| ● at 125 V | 0.2 A |
| ● at 250 V | 0.1 A |
| **operational current at 17 V minimum** | 0.005 A |
| **continuous current of the DIAZED fuse link of the output relay** | 4 A |
| **Electromagnetic compatibility** | |
| **conducted interference** | |
| ● due to burst according to IEC 61000-4-4 | 2 kV |
| ● due to conductor-earth surge according to IEC 61000-4-5 | 2 kV |
| ● due to conductor-conductor surge according to IEC 61000-4-5 | 1 kV |
| **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 |
| **Galvanic isolation** | |
| **design of the electrical isolation** | Protective separation |
| **galvanic isolation** | |
| ● between input and output | Yes |
| ● between the outputs | Yes |
| ● between the voltage supply and other circuits | No |
| **Connections/ Terminals** | |
| **product component removable terminal for main circuit** | Yes |
| **product component removable terminal for auxiliary and control circuit** | Yes |


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| | |
|---|---|
| **type of electrical connection** | |
| ● for main current circuit | screw-type terminals |
| ● for auxiliary and control circuit | screw-type terminals |
| **type of connectable conductor cross-sections** | |
| ● solid | 1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²) |
| ● finely stranded with core end processing | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) |
| ● at AWG cables solid | 2x (20 ... 14) |
| ● at AWG cables stranded | 2x (20 ... 14) |
| **connectable conductor cross-section** | |
| ● solid | 0.5 ... 4 mm² |
| ● finely stranded with core end processing | 0.5 ... 2.5 mm² |
| **AWG number as coded connectable conductor cross section** | |
| ● solid | 20 ... 14 |
| ● stranded | 20 ... 14 |
| tightening torque with screw-type terminals | 0.8 ... 1.2 N·m |

## Installation/ mounting/ dimensions

| | |
|---|---|
| **mounting position** | any |
| **fastening method** | snap-on mounting |
| **height** | 92 mm |
| **width** | 22.5 mm |
| **depth** | 91 mm |
| **required spacing** | |
| ● with side-by-side mounting | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 0 mm |
| ● for grounded parts | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — at the side | 0 mm |
| — downwards | 0 mm |
| ● for live parts | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 0 mm |

## Ambient conditions

| | |
|---|---|
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -25 ... +60 °C |
| ● during storage | -40 ... +85 °C |
| ● during transport | -40 ... +85 °C |

## Certificates/ approvals

| General Product Approval | | | | EMC | Declaration of Conformity |
|---|---|---|---|---|---|
| Confirmation | | | | | |

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


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Special Test Certificate | Type Test Certificates/Test Report | Confirmation

## Railway

Vibration and Shock

## Further information

**Siemens has decided to exit the Russian market (see here).**
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

**Siemens is working on the renewal of the current EAC certificates.**
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**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=3UG4621-1AA30

**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4621-1AA30

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AA30

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4621-1AA30&lang=en

**Characteristic: Derating**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AA30/manual

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