SIEMENS

## Data sheet 3UG4621-1AW30


Figure similar

Digital monitoring relay Current monitoring, 22.5 mm from 2-500 mA AC/DC 0vershoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC 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 3UG3521-1AL20, 3UG3521-1AG20 and 3UG3521-1AC48-0AA1

| | |
|---|---|
| **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 acc. to IEC 60068-2-27 | sinusoidal half-wave 15g / 11 ms |
| vibration resistance acc. to IEC 60068-2-6 | 1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g |
| 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 |
| **relative repeat accuracy** | 1 % |
| **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 |

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| ● auto-RESET | Yes |
| **Supply voltage** | |
| **type of voltage of the supply voltage** | AC/DC |
| **supply voltage 1 at AC** | |
| ● at 50 Hz | 20.4 ... 264 V |
| ● at 60 Hz | 20.4 ... 264 V |
| **supply voltage 1 at DC** | 20.4 ... 264 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 ... 240 V |
| **Outputs** | |
| **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 acc. to IEC 61000-4-4 | 2 kV |
| ● due to conductor-earth surge acc. to IEC 61000-4-5 | 2 kV |
| ● due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV |
| **field-based interference acc. to IEC 61000-4-3** | 10 V/m |
| **electrostatic discharge acc. 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 |

| | |
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| ● between the voltage supply and other circuits | Yes |
| **Connections/ Terminals** | |
| **product function** | |
| ● removable terminal for main circuit | Yes |
| ● removable terminal for auxiliary and control circuit | Yes |
| **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 |
| ● connectable conductor cross-section finely stranded with core end processing | 0.5 ... 2.5 mm² |
| ● AWG number as coded connectable conductor cross section solid | 20 ... 14 |
| ● AWG number as coded connectable conductor cross section 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 |
| ● ambient temperature during storage | -40 ... +85 °C |
| ● ambient temperature during transport | -40 ... +85 °C |
| **Certificates/ approvals** | |

| General Product Approval | EMC | Declaration of Conformity | Test Certificates |
|---|---|---|---|

Miscellaneous

Type Test Certificates/Test Report

| Test Certificates | Marine / Shipping | other | Railway |
|---|---|---|---|
| Special Test Certificate | | 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=3UG4621-1AW30
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4621-1AW30
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AW30
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4621-1AW30&lang=en
**Characteristic: Derating**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AW30/manual

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