

Digital monitoring relay Current monitoring, 22.5 mm from 0.05-10 A AC/DC Overshoot 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 0.01 to 5 A 1 change-over contact with or without fault buffer screw terminal Successor product for 3UG3522-1AL20, 3UG3522-1AG20 and 3UG3522-1AC48-0AA1

| | |
|--------------------------|---|
| 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 |
| 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 |
| Mechanical service life (switching cycles) | |
| • typical | 10 000 000 |
| Electrical endurance (switching cycles) | |
| • at AC-15 at 230 V typical | 100 000 |

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| Thermal current of the switching element with contacts maximum | 5 A |
| Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | K |
| Reference code acc. to DIN EN 81346-2 | K |
| Reference code acc. to DIN EN 61346-2 | K |
| Relative repeat accuracy | 1 % |

Product Function

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|--|-----|
| 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 | |
| • at 50 Hz | 24 ... 240 V |
| • at 60 Hz | 240 ... 24 V |
| Supply voltage 1 at DC | 24 ... 240 V |

Measuring circuit

| | |
|---|-----------------|
| Type of current for monitoring | AC/DC |
| Measurable current | 0.05 ... 15 A |
| Measurable line frequency | 40 ... 500 Hz |
| Adjustable pick-up value current | |
| • 1 | 0.05 ... 10 A |
| • 2 | 0.05 ... 10 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 | 10 ... 5 000 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 | 5 mΩ |
| Precision | |
| Relative metering precision | 5 % |
| Temperature drift per °C | 0.1 %/°C |
| Auxiliary circuit | |
| 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 |
| Operating 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-bound parasitic coupling 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 | Safe isolation |
| Galvanic isolation | |
| • between entrance and outlet | Yes |
| • between the outputs | Yes |
| • between the voltage supply and other circuits | Yes |
| Connections/ Terminals | |
| Product function | |

| | |
|--|---|
| <ul style="list-style-type: none"> removable terminal for main circuit removable terminal for auxiliary and control circuit | <p>Yes</p> <p>Yes</p> |
| Type of electrical connection <ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit | <p>screw-type terminals</p> <p>screw-type terminals</p> |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> solid finely stranded with core end processing at AWG conductors solid at AWG conductors stranded | <p>1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 14)</p> |
| Connectable conductor cross-section <ul style="list-style-type: none"> solid finely stranded with core end processing | <p>0.5 ... 4 mm²</p> <p>0.5 ... 2.5 mm²</p> |
| AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> solid stranded | <p>20 ... 14</p> <p>20 ... 14</p> |
| Tightening torque <ul style="list-style-type: none"> with screw-type terminals | <p>0.8 ... 1.2 N·m</p> |

| Installation/ mounting/ dimensions | |
|---|---|
| Mounting position | any |
| Mounting type | snap-on mounting |
| Height | 92 mm |
| Width | 22.5 mm |
| Depth | 91 mm |
| Required spacing <ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards Backwards upwards downwards at the side for grounded parts <ul style="list-style-type: none"> forwards Backwards upwards at the side downwards for live parts <ul style="list-style-type: none"> forwards Backwards | <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> |

- upwards
- downwards
- at the side

0 mm
0 mm
0 mm








Ambient conditions

Installation altitude at height above sea level

- maximum

2 000 m

Certificates/ approvals

| General Product Approval | | EMC | | Declaration of Conformity | |
|--|---|--|--|---|-------------------------------------|
|  CCC |  UL |  |  RCM |  EG-Konf. | Miscellaneous |
| Test Certificates | | Marine / Shipping | | other | Railway |
| Special Test Certificate | Type Test Certificates/Test Report |  LRS |  DNV-GL.COM/AF | Confirmation | Vibration and Shock |

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4622-1AW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4622-1AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4622-1AW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4622-1AW30&lang=en

last modified:

07/26/2019