



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
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	

<ul style="list-style-type: none"> • at 50 Hz • 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	0.05 ... 15 A
measurable line frequency	40 ... 500 Hz
adjustable current response value current	
<ul style="list-style-type: none"> • 1 • 2 	0.05 ... 10 A
adjustable response delay time	0.05 ... 10 A
<ul style="list-style-type: none"> • when starting • with lower or upper limit violation 	0.1 ... 20 s
adjustable switching hysteresis for measured current value	0.1 ... 20 s
buffering time in the event of power failure minimum	10 ... 5 000 mA
accuracy of digital display	10 ms
relative temperature-related measurement deviation	+/-1 digit
internal resistance of the measuring circuit	5 %
	5 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
ampacity of the output relay at AC-15	
<ul style="list-style-type: none"> • at 250 V at 50/60 Hz • at 400 V at 50/60 Hz 	3 A
ampacity of the output relay at DC-13	3 A
<ul style="list-style-type: none"> • at 24 V • at 125 V • at 250 V 	1 A
operational current at 17 V minimum	0.2 A
continuous current of the DIAZED fuse link of the output relay	0.1 A
	0.005 A
	4 A
Electromagnetic compatibility	
conducted interference	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 	2 kV
	2 kV
	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	
<ul style="list-style-type: none"> • between input and output • between the outputs • between the voltage supply and other circuits 	Yes
	Yes
	Yes
Connections/ Terminals	
product component removable terminal for main circuit	Yes
product component removable terminal for auxiliary and control circuit	Yes
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

type of connectable conductor cross-sections

- solid
- finely stranded with core end processing
- at AWG cables solid
- at AWG cables stranded

1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)
 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
 2x (20 ... 14)
 2x (20 ... 14)

connectable conductor cross-section

- solid
- finely stranded with core end processing

0.5 ... 4 mm²
 0.5 ... 2.5 mm²

AWG number as coded connectable conductor cross section

- solid
- stranded

20 ... 14
 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
 - backwards
 - upwards
 - downwards
 - at the side
- for grounded parts
 - forwards
 - backwards
 - upwards
 - at the side
 - downwards
- for live parts
 - forwards
 - backwards
 - upwards
 - downwards
 - at the side

0 mm
 0 mm
 0 mm
 0 mm
 0 mm

 0 mm
 0 mm
 0 mm
 0 mm
 0 mm

 0 mm
 0 mm
 0 mm
 0 mm
 0 mm

Ambient conditions

installation altitude at height above sea level maximum

2 000 m

ambient temperature

- during operation
- during storage
- during transport

-25 ... +60 °C
 -40 ... +85 °C
 -40 ... +85 °C

Certificates/ approvals**General Product Approval****EMC****Declaration of
Conformity**[Confirmation](#)**Declaration of
Conformity****Test Certificates****Marine / Shipping****other**
[Type Test Certificates/Test Report](#)
[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=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

Characteristic: Derating

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

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