



DIGITAL MONITORING RELAY CURRENT MONITORING, 22.5MM FROM 0.05 TO 10A AC/DC OVERSHOOT A. UNDERSHOOT AC/DC 24 TO 240V DC AND AC 50 TO 60 HZ ON AND SPIKE DELAY 0.1 TO 20S HYSTERESIS 0.01 TO 5A 1 CO CONTACT W. OR W/O ERROR MEMORY SCREW CONNECTION REPLACEMENT PRODUCT FOR 3UG3522-1AL20, 3UG3522-1AG20 AND 3UG3522-1AC48-0AA1

<b>Product function</b>		Current monitoring relay
<b>Measuring circuit:</b>		
<b>Number of poles for main current circuit</b>		1
<b>Type of current for monitoring</b>		AC/DC
<b>Measurable current</b>	A	0.05 ... 15
<b>Measurable current with AC</b>	mA	50 ... 15 000
<b>Measurable line frequency</b>	Hz	40 ... 500
<b>Adjustable response value current</b>		
• 1	A	0.5 ... 10
• 2	A	0.5 ... 10
<b>Adjustable response delay time</b>		
• when starting	s	0.1 ... 20
• with lower or upper limit violation	s	0.1 ... 20
<b>Adjustable switching hysteresis for measured current value</b>	mA	10 ... 5 000
<b>Buffering time in the event of power failure minimum</b>	ms	10
<b>Operating voltage Rated value</b>	V	24 ... 240
<b>Response time maximum</b>	ms	450
<b>Relative metering precision</b>	%	5
<b>Accuracy of digital display</b>		+/-1 digit
<b>Relative temperature-related measurement deviation</b>	%	5
<b>Temperature drift per °C</b>	%/°C	0.1
<b>Relative repeat accuracy</b>	%	1
<b>General technical data:</b>		
<b>Design of the display</b>		LCD

<b>Product function</b>		
• 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
• External reset		Yes
• Auto-reset		Yes
• Adjustable open/closed-circuit current principle		Yes
<b>Startup time after the control supply voltage has been applied</b>	ms	1 000
<b>Type of voltage of the supply voltage</b>		AC/DC
<b>Supply voltage</b>		
• 1 with AC		
— at 50 Hz	V	24 ... 240
— at 60 Hz	V	240 ... 24
• 1		
— for DC	V	24 ... 240
<b>Surge voltage resistance Rated value</b>	kV	4
<b>Active power consumption</b>	W	2
<b>Protection class IP</b>		IP20
<b>Electromagnetic compatibility</b>		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
<b>Vibration resistance acc. to IEC 60068-2-6</b>		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
<b>Shock resistance acc. to IEC 60068-2-27</b>		sinusoidal half-wave 15g / 11 ms
<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Conducted interference due to burst acc. to IEC 61000-4-4</b>		2 kV
<b>Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5</b>		2 kV
<b>Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5</b>		1 kV
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>		6 kV contact discharge / 8 kV air discharge
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>		10 V/m
<b>Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value</b>	V	690
<b>maximum permissible voltage for safe isolation</b>		
• between control and auxiliary circuit	V	300
• between auxiliary and auxiliary circuit	V	300
<b>Degree of pollution</b>		3

<b>Ambient temperature</b>		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +85
• during transport	°C	-40 ... +85
<b>Galvanic isolation</b>		
• between entrance and outlet		Yes
• between the outputs		Yes
• between the voltage supply and other circuits		Yes

### Mechanical data:

<b>Width</b>	mm	22.5
<b>Height</b>	mm	92
<b>Depth</b>	mm	91
<b>mounting position</b>		any
<b>Required spacing for grounded parts</b>		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Required spacing with side-by-side mounting</b>		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Required spacing for live parts</b>		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Mounting type</b>		snap-on mounting
<b>Type of electrical connection</b>		
• for auxiliary and control current circuit		screw-type terminals
• for main current circuit		screw-type terminals
<b>Product function</b>		
• removable terminal for auxiliary and control circuit		Yes
• removable terminal for main circuit		Yes
<b>Type of connectable conductor cross-section</b>		
• solid		1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded		

— with core end processing		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• for AWG conductors		
— solid		2x (20 ... 14)
— stranded		2x (20 ... 14)
Tightening torque with screw-type terminals	N·m	0.8 ... 1.2

#### Outputs:

Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		1
<b>Ampacity</b>		
• of the output relay		
— at AC-15		
— at 250 V at 50/60 Hz	A	3
— at 400 V at 50/60 Hz	A	3
— at DC-13		
— at 24 V	A	1
— at 125 V	A	0.2
— at 250 V	A	0.1
• for permanent overcurrent maximum permissible	A	15
• for overcurrent duration < 1 s maximum permissible	A	50
Operating current at 17 V minimum	A	0.005
Continuous current of the DIAZED fuse link of the output relay	A	4
Thermal current of the switching element with contacts maximum	A	5
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
Operating frequency with 3RT2 contactor maximum	1/h	5 000

#### Certificates/ approvals:

General Product Approval	EMC	Test Certificates
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval	other
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[other](#)

[Declaration of Conformity](#)

### Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrymall>

**Cax online generator**

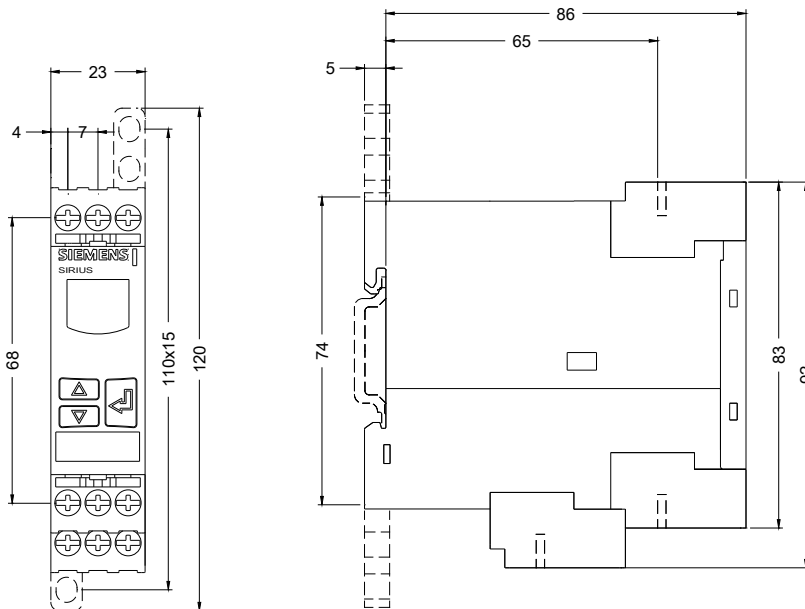
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG46221AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG46221AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3UG46221AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG46221AW30&lang=en)



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