

DIGITAL MONITORING RELAY CURRENT MONITORING, 22.5MM FROM 2 TO 500MA 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 0.1 TO 250MA 1 CO CONTACT W. OR W/O ERROR MEMORY SCREW CONNECTION REPLACEMENT PRODUCT FOR 3UG3521-1AL20, 3UG3521-1AG20 AND 3UG3521-1AC48-0AA1

<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	0.0030 ... 0.6
• for AC	mA	3 ... 600
<b>Measurable line frequency</b>	Hz	40 ... 500
<b>Adjustable response current</b>		
• 1	A	0.0030 ... 0.5
• 2	A	0.0030 ... 0.5
<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	0.1 ... 250
<b>Stored energy time / at mains power cut / minimum</b>	ms	10
<b>Operating voltage</b>		
• rated value	V	24 ... 240
<b>Response time / maximum</b>	ms	450
<b>Relative metering precision</b>	%	5
<b>Precision of digital display</b>		+/-1 digit

Relative temperature-related measurement deviation	%	5
Temperature drift per °C	%/°C	0.1
Relative repeat accuracy	%	1

#### General technical details:

<b>Design of the display</b>		LCD
<b>Product function</b>		
• overcurrent recognition of 1 phase		Yes
• overcurrent recognition of 3 phases		No
• undercurrent recognition of 1 phase		Yes
• undercurrent recognition of 3 phases		No
• overcurrent recognition DC		Yes
• undercurrent recognition DC		Yes
• current window recognition DC		Yes
• reset external		Yes
• self-reset		Yes
• open-circuit or closed-circuit current principle		Yes
<b>Starting time / after the control supply voltage has been applied</b>	ms	1,000
<b>Type of / supply voltage</b>		AC/DC
<b>Supply voltage / 1</b>		
• at 50 Hz		
• for AC	V	24 ... 240
• at 60 Hz		
• for AC	V	240 ... 24
• for DC	V	24 ... 240
<b>Impulse voltage resistance / rated value</b>	kV	4
<b>Recorded real power</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>Resistance against vibration / according to IEC 60068-2-6</b>		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
<b>Resistance against shock / according to IEC 60068-2-27</b>		sinusoidal half-wave 15g / 11 ms
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4</b>		2 kV
<b>Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5</b>		2 kV
<b>Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5</b>		1 kV
<b>Electrostatic discharge / according to IEC 61000-4-2</b>		6 kV contact discharge / 8 kV air discharge
<b>Field-bound parasitic coupling / according 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 disconnection</b>		
• between control and auxiliary circuit	V	300
• between auxiliary circuit and auxiliary circuit	V	300
<b>Degree of pollution</b>		3
<b>Ambient temperature</b>		
• during operating	°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 design:







<b>Width</b>	mm	22.5
<b>Height</b>	mm	92
<b>Depth</b>	mm	91
<b>mounting position</b>		any
<b>Distance, to be maintained, to earthed part</b>		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Distance, to be maintained, to the ranks assembly</b>		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Distance, to be maintained, conductive elements</b>		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
<b>Mounting type</b>		snap-on mounting
<b>Design of the electrical connection</b>		

<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> <li>• for main current circuit</li> </ul>		screw-type terminals
<b>Product function</b>		screw-type terminals
<ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> <li>• removable terminal for main circuit</li> </ul>		Yes
		Yes
<b>Type of the connectable conductor cross-sections</b>		
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with wire end processing</li> </ul> </li> <li>• for AWG conductors <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul> </li> </ul>		1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
		2x (20 ... 14)
		2x (20 ... 14)
<b>Tightening torque</b>		
<ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	N·m	0.8 ... 1.2

#### Outputs:

<b>Number of NO contacts / delayed switching</b>		0
<b>Number of NC contacts / delayed switching</b>		0
<b>Number of change-over switches / delayed switching</b>		1
<b>Current carrying capacity</b>		
<ul style="list-style-type: none"> <li>• of output relay <ul style="list-style-type: none"> <li>• at AC-15 <ul style="list-style-type: none"> <li>• at 250 V / at 50/60 Hz</li> <li>• at 400 V / at 50/60 Hz</li> </ul> </li> <li>• at DC-13 <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> <li>• at 250 V</li> </ul> </li> <li>• for permanent overcurrent / maximum permissible</li> <li>• for overcurrent duration &lt; 1 s / maximum permissible</li> </ul> </li> </ul>	A	3
	A	3
	A	1
	A	0.2
	A	0.1
	A	0.6
	A	5
<b>Operating current / at 17 V / minimum</b>	A	0.0050
<b>Continuous current / of the DIAZED fuse link of the output relay</b>	A	4
<b>Thermal current / of the contact-affected switching element / maximum</b>	A	5
<b>Mechanical operating cycles as operating time / typical</b>		10,000,000
<b>Electrical operating cycles as operating time / at AC-15 / at 230 V / typical</b>		100,000
<b>Operating cycles / with 3RT2 contactor / maximum</b>	1/h	5,000

#### Certificates/approvals:

General Product Approval		EMC	Test Certificates	
 CCC	 UL	 C-TICK	<a href="#">Special Test Certificate</a>	<a href="#">Type Test Certificates/Test Report</a>
Shipping Approval			other	
 DNV	 GL	 LRS	<a href="#">Declaration of Conformity</a>	<a href="#">other</a>

**Further information:**

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator:**

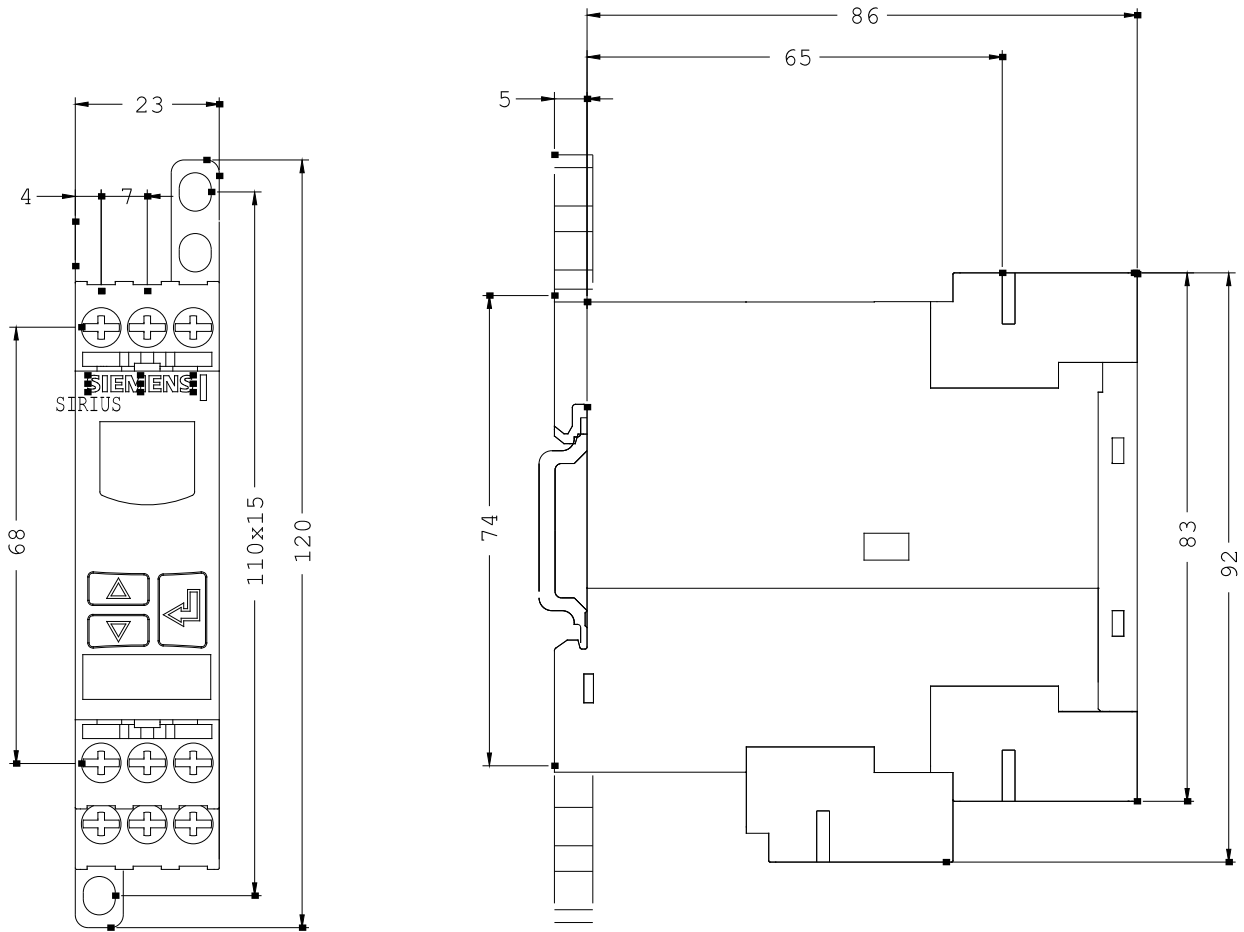
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3UG4621-1AW30/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3UG4621-1AW30](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UG4621-1AW30)



last change:

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