



DIGITAL MONITORING RELAY FOR THREE-PH. VOLT. W. N COND. REVERSIBLE PHASE SEQUENCE PHASE FAILURE 3X 160 TO 690V AC 50 TO 60 HZ UNDERVOLT. AND OVERVOLT. 160-690V HYSTERESIS 1-20V 0-20S EACH FOR UMIN AND UMAX 1 W FOR UMIN 1 W FOR UMAX SCREW TERMINAL REPLACEMENT PRODUCT F. 3UG3042-1BP50

Figure similar

<b>Product function</b>		Phase monitoring relay
<b>Measuring circuit:</b>		
<b>Type of voltage for monitoring</b>		AC
<b>Number of poles for main current circuit</b>		3
Measurable voltage at AC	V	160 ... 690
<b>Adjustable voltage range</b>	V	160 ... 690
<b>Adjustable response delay time</b>		
• with lower or upper limit violation	s	0.1 ... 20
<b>Relative setting accuracy</b>	%	0.2
<b>Relative metering precision</b>	%	5
<b>Accuracy of digital display</b>		+/-1 digit
<b>Relative repeat accuracy</b>	%	1
<b>General technical data:</b>		
<b>Design of the display</b>		LCD
<b>Display version LED</b>		No
<b>Product function</b>		
• undervoltage detection		Yes

<ul style="list-style-type: none"> <li>• Overvoltage detection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• phase sequence recognition</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Phase failure detection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Phase unbalance</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Overvoltage detection 3 phase</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• undervoltage detection 3 phases</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Voltage window recognition 3 phase</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Auto-reset</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• Adjustable open/closed-circuit current principle</li> </ul>		Yes
<b>Starting time after the control supply voltage has been applied</b>	ms	1 000
<b>Response time maximum</b>	ms	450
<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage</b>		
<ul style="list-style-type: none"> <li>• at AC <ul style="list-style-type: none"> <li>— at 50 Hz rated value</li> <li>— at 60 Hz rated value</li> </ul> </li> </ul>	V	160 ... 690
	V	160 ... 690
<b>Operating range factor control supply voltage rated value</b>		
<ul style="list-style-type: none"> <li>• at AC <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> </ul>		1 ... 1
		1 ... 1
<b>Surge voltage resistance rated value</b>	kV	6
<b>Consumed active 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>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>Degree of pollution</b>		3
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	°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	102
<b>Depth</b>	mm	91
<b>Mounting position</b>		any
Required spacing for grounded parts		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing with side-by-side mounting		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing for live parts		
• 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>Product function removable terminal for auxiliary and control circuit</b>		Yes
<b>Type of electrical connection</b>		screw-type terminals
<b>Type of connectable conductor cross-sections</b>		
• solid		1x (0.5 ... 4 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> )
• at 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		2
Ampacity of the 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> </ul>	A A A A A	3 3 1 0.2 0.1
Thermal current of the switching element with contacts maximum	A	5
Operating current at 17 V minimum	mA	5
Continuous current of the DIAZED fuse link of the output relay	A	4
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	Declaration of Conformity	Test Certificates
 CCC	 UL	 EAC	 C-Tick
		 EG-Konf.	<a href="#">Type Test Certificates/Test Report</a>

Test Certificates	Shipping Approval	other	Railway
<a href="#">Special Test Certificate</a>	 LRS	<a href="#">Confirmation</a>	<a href="#">Vibration and Shock</a>

## 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&mlfb=3UG4616-1CR20>



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