



DIGITAL MONITORING RELAY FOR THREE-PHASE LINE VOLTAGE 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 1W FOR UMAX SCREW TERMINAL REPLACEMENT PRODUCT F. 3UG3041-1BP50

Figure similar

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

<ul style="list-style-type: none"> • phase sequence recognition • Phase failure detection • Phase unbalance • Overvoltage detection 3 phase • undervoltage detection 3 phases • Voltage window recognition 3 phase • Auto-reset • Adjustable open/closed-circuit current principle 		Yes
		Yes
		Yes
		Yes
		Yes
		Yes
		Yes
Starting time after the control supply voltage has been applied	ms	1 000
Response time maximum	ms	450
Type of voltage of the control supply voltage		AC
Control supply voltage		
<ul style="list-style-type: none"> • at AC <ul style="list-style-type: none"> — at 50 Hz rated value — at 60 Hz rated value 	V	160 ... 690
	V	160 ... 690
Operating range factor control supply voltage rated value		
<ul style="list-style-type: none"> • at AC <ul style="list-style-type: none"> — at 50 Hz — at 60 Hz 		1 ... 1
		1 ... 1
Surge voltage resistance rated value	kV	6
Consumed active power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Vibration resistance acc. to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Shock resistance acc. to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude at height above sea level maximum	m	2 000
Conducted interference due to burst acc. to IEC 61000-4-4		2 kV
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
Electrostatic discharge acc. to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m
Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	V	690
Degree of pollution		3
Ambient temperature		
<ul style="list-style-type: none"> • during operation • during storage 	°C	-25 ... +60
	°C	-40 ... +85






<ul style="list-style-type: none"> during transport 	°C	-40 ... +85
Galvanic isolation		
<ul style="list-style-type: none"> between entrance and outlet 		Yes
<ul style="list-style-type: none"> between the outputs 		Yes
<ul style="list-style-type: none"> between the voltage supply and other circuits 		Yes




Mechanical data:		
Width	mm	22.5
Height	mm	92
Depth	mm	91
Mounting position		any
Required spacing for grounded parts		
<ul style="list-style-type: none"> forwards 	mm	0
<ul style="list-style-type: none"> Backwards 	mm	0
<ul style="list-style-type: none"> at the side 	mm	0
<ul style="list-style-type: none"> upwards 	mm	0
<ul style="list-style-type: none"> downwards 	mm	0
Required spacing with side-by-side mounting		
<ul style="list-style-type: none"> forwards 	mm	0
<ul style="list-style-type: none"> Backwards 	mm	0
<ul style="list-style-type: none"> at the side 	mm	0
<ul style="list-style-type: none"> upwards 	mm	0
<ul style="list-style-type: none"> downwards 	mm	0
Required spacing for live parts		
<ul style="list-style-type: none"> forwards 	mm	0
<ul style="list-style-type: none"> Backwards 	mm	0
<ul style="list-style-type: none"> at the side 	mm	0
<ul style="list-style-type: none"> upwards 	mm	0
<ul style="list-style-type: none"> downwards 	mm	0
Mounting type		snap-on mounting
Product function removable terminal for auxiliary and control circuit		Yes
Type of electrical connection		screw-type terminals
Type of connectable conductor cross-sections		
<ul style="list-style-type: none"> solid 		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> finely stranded <ul style="list-style-type: none"> — with core end processing 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> at AWG conductors <ul style="list-style-type: none"> — solid 		2x (20 ... 14)
<ul style="list-style-type: none"> at AWG conductors <ul style="list-style-type: none"> — 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		
• 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
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	 C-TICK
		 EG-Konf.	Typprüfbescheinigung/Werkszeugnis

Test Certificates	Shipping Approval	other	Railway
spezielle Prüfbescheinigung <u>n</u>	 DNV	 GL	 LRS
		Bestätigungen	Schwingen/Schocke <u>n</u>

Further information

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

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

Industry Mall (Online ordering system)

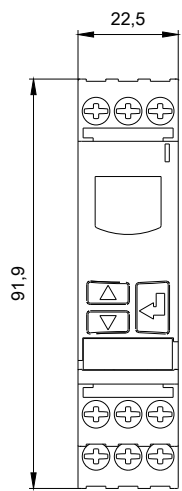
<http://www.siemens.com/industrymall>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG46151CR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG46151CR20>



last modified:



19.03.2016