



DIGITAL MONITORING RELAY FOR FAULT CURRENT MONITORING (W. CO CONTACT 3UL22) SETTING RANGE 10 TO 100% OF CO CONTACT NOM. VALUE SEPARATE FOR ALARM THRESHOLD AND SWITCH-OFF VALUE AC 90 TO 690V AC 50 TO 60 HZ STARTUP AND TRIPPING DELAYED 0.1 TO 20S SWITCH-OFF HYSTERESIS TO 50% ALARM HYSTERESIS 5% FIXED 2 CHANGEOVER CONTACTS W. OR W/O ERROR LOG SCREW TERMINAL REPLACEMENT PRODUCT F. 3UL21

Product function

for three-phase supplies

Measuring circuit:

Type of current / for monitoring		AC
Measurable current	mA	30 ... 40,000
Measurable line frequency	Hz	60 ... 50
Adjustable response current		
• 1	mA / A	30 ... 40
• 2	mA / A	30 ... 40
Adjustable response delay time		
• when starting	s	0.1 ... 20
Adjustable switching hysteresis for measured current value	mA	15 ... 2
Stored energy time / at mains power cut / minimum	ms	10
Operating voltage		
• rated value	V	17 ... 400
Relative metering precision	%	5
Precision of digital display		+/-1 digit
Temperature drift per °C	%/°C	0.1
Relative repeat accuracy	%	1

General technical details:

Design of the display

LCD







Product function <ul style="list-style-type: none">• difference current indication• defect storage• overcurrent recognition of 1 phase• undercurrent recognition of 1 phase• reset external• open-circuit or closed-circuit current principle		Yes
		Yes
		Yes
		No
		Yes
		Yes
Starting time / after the control supply voltage has been applied	ms	1,000
Response time / maximum	ms	300
Type of voltage / of the controlled supply voltage		AC
Control supply voltage <ul style="list-style-type: none">• at 50 Hz / at AC<ul style="list-style-type: none">• rated value• at 60 Hz / at AC<ul style="list-style-type: none">• rated value	V	90 ... 690
	V	90 ... 690
Operating range factor control supply voltage rated value <ul style="list-style-type: none">• at 50 Hz<ul style="list-style-type: none">• for AC• at 60 Hz<ul style="list-style-type: none">• for AC		1
		1 ... 1
Impulse voltage resistance / rated value	kV	6
Recorded real power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Resistance against vibration / according to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Resistance against shock / according to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude / at a height over sea level / maximum	m	2,000
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV
Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5		2 kV
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV
Electrostatic discharge / according to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling / according 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 operating• during storage	°C	-25 ... +60
	°C	-40 ... +85

• during transport	°C	-40 ... +85
Design of the electrical isolation		galvanic
Galvanic isolation		
• between entrance and outlet		Yes
• between the outputs		Yes
• between the voltage supply and other circuits		Yes

Mechanical design:		
Width	mm	22.5
Height	mm	102
Depth	mm	91
mounting position		any
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Product function / removable terminal for auxiliary and control circuit		Yes
Design of the electrical connection		screw-type terminals
Type of the connectable conductor cross-section		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded		
• with wire end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• 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 change-over switches / delayed switching		2
Current carrying capacity / of 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
Operating current / at 17 V / minimum	mA	5
Continuous current / of the DIAZED fuse link of the output relay	A	4
Thermal current / of the contact-affected switching element / maximum	A	5
Mechanical operating cycles as operating time / typical		10,000,000
Electrical operating cycles as operating time / at AC-15 / at 230 V / typical		100,000
Operating cycles / with 3RT2 contactor / maximum	1/h	5,000

Certificates/approvals:		
General Product Approval	EMC	Test Certificates
 CCC	 GOST	 C-TICK
		Special Test Certificate
Shipping Approval		other
 DNV	 GL	 LRS
		Declaration of Conformity
		other

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/3UG4624-1CS20/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UG4624-1CS20

last change:

Feb 18, 2013