



DIGITAL MONITORING RELAY FOR FAULT CURRENT MONITORING (W. CURRENT TRANSFORMER 3UL23) SETTING RANGE 0.03A TO 40A SEPARATE FOR ALARM THRESHOLD AND SWITCH-OFF VALUE SUPPLY VOLTAGE AC/DC 24 .. 240 V, 50 .. 60 HZ STARTUP AND TRIPPING DELAY 0.1 TO 20S SWITCH-OFF HYSTERESIS UP TO 50% ALARM HYSTERESIS 5% FIXED WIDTH 22.5 MM, 2 CO CONTACTS W. OR W/O ERROR LOG SCREW TERMINAL

Figure similar

<b>Product function</b>		for three-phase supplies
-------------------------	--	--------------------------

**Measuring circuit:**

<b>Type of current for monitoring</b>		AC
<b>Measurable current</b>	mA	10 ... 43 000
<b>Measurable line frequency</b>	Hz	16 ... 400
<b>Adjustable response value current</b>		
• 1	mA	30 ... 40 A
• 2	mA	30 ... 40 A
<b>Adjustable response delay time when starting</b>	s	0.1 ... 20
<b>Buffering time in the event of power failure minimum</b>	ms	10
<b>Operating voltage Rated value</b>	V	24 ... 240
<b>Relative metering precision</b>	%	5
<b>Accuracy of digital display</b>		+/-1 digit
<b>Temperature drift per °C</b>	%/°C	0.1
<b>Relative repeat accuracy</b>	%	1

**General technical data:**



<b>Design of the display</b>		LCD
<b>Product function</b>		
• difference current indication		Yes
• Fault storage		Yes
• Overcurrent detection 1 phase		Yes
• undercurrent detection 1 phase		No
• External reset		Yes
• Adjustable open/closed-circuit current principle		Yes

<b>Startup time after the control supply voltage has been applied</b>	ms	1 600
<b>Response time maximum</b>	ms	100
<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage</b>		
• with AC		
— at 50 Hz Rated value	V	24 ... 240
— at 60 Hz Rated value	V	24 ... 240
• for DC Rated value	V	24 ... 240
<b>Operating range factor control supply voltage rated value</b>		
• with AC		
— at 50 Hz		0.85 ... 1.1
— at 60 Hz		0.85 ... 1.1
• for DC		0.85 ... 1.1
<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>		4 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	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>Design of the electrical isolation</b>		galvanic
<b>Galvanic isolation</b>		
• between entrance and outlet		Yes
• between the outputs		Yes
• between the voltage supply and other circuits		No

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>		screw and snap-on mounting onto 35 mm standard mounting rail
<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-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:		
<b>Number of NO contacts delayed switching</b>		0
<b>Number of NC contacts delayed switching</b>		0
<b>Number of CO contacts delayed switching</b>		2
<b>Ampacity of the output relay</b>		
• at AC-15		

— at 250 V at 50/60 Hz	A	3
— at 400 V at 50/60 Hz	A	0
• at DC-13		
— at 24 V	A	1
— at 125 V	A	0.2
— at 250 V	A	0.1
<b>Operating current at 17 V minimum</b>	mA	5
<b>Continuous current of the DIAZED fuse link of the output relay</b>	A	4
<b>Thermal current of the switching element with contacts maximum</b>	A	5
<b>Mechanical service life (switching cycles) typical</b>		10 000 000
<b>Electrical endurance (switching cycles) at AC-15 at 230 V typical</b>		100 000
<b>Operating frequency with 3RT2 contactor maximum</b>	1/h	5 000

#### Certificates/ approvals:

General Product Approval	Test Certificates	other		
		<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>	<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/industrymall>

##### Cax online generator

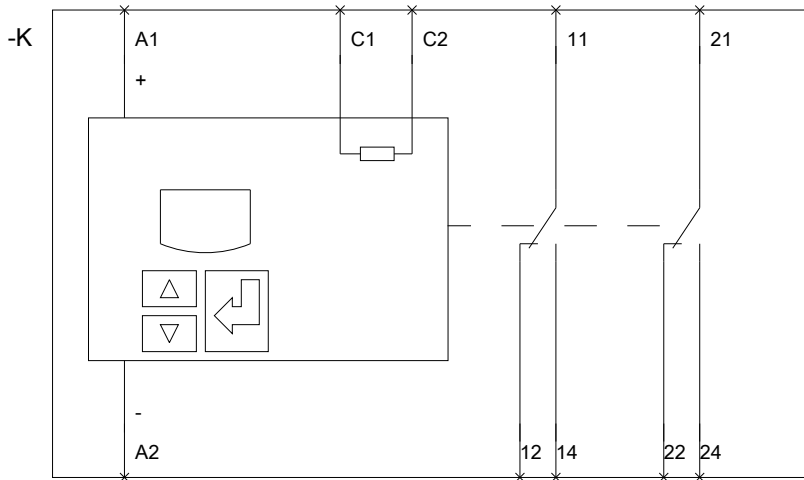
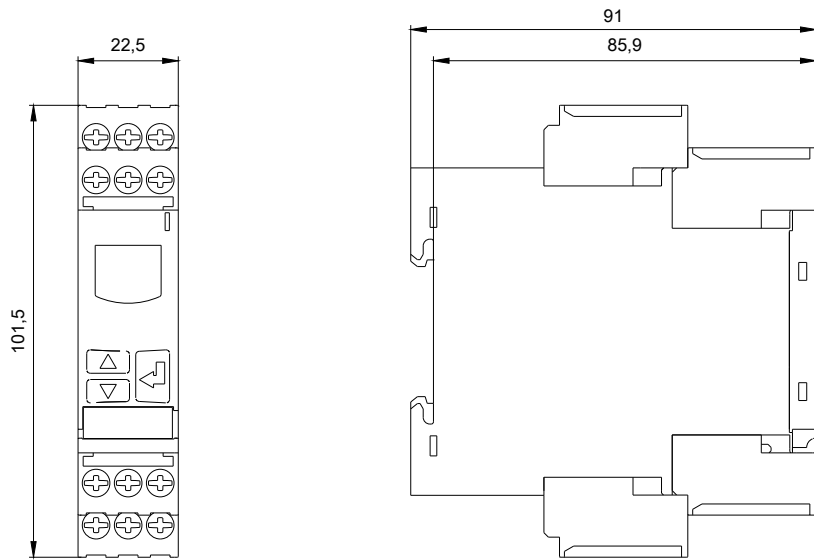
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG46251CW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG46251CW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG46251CW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG46251CW30&lang=en)



last modified:

16.03.2015