



DIGITAL MONITORING RELAY UNBALANCE 0-20%
 REVERSIBLE PHASE SEQUENCE PHASE FAILURE 3X
 160 TO 690V AC 50 TO 60 HZ UNDERVOLTAGE 160-690V
 HYSTERESIS 1-20V ON AND OFF DELAY 0-20S 2
 CHANGEOVER CONTACTS SPRING LOADED
 CONNECTION

Product function	Phase monitoring relay
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Measuring circuit:		
Type of voltage / for monitoring		AC
Number of poles / for main current circuit		3
Measurable voltage		
• for AC	V	160 ... 690
Adjustable voltage range	V	160 ... 690
Adjustable response delay time		
• when starting	s	0.1 ... 20
• with lower or upper limit violation	s	0.1 ... 20
Relative adjustment accuracy	%	0.2
Relative metering precision	%	5
Precision of digital display		+/-1 digit
Relative repeat accuracy	%	1

General technical details:		
Design of the display		LCD
Type of display / LED		No
Product function		
• undervoltage recognition		Yes
• overvoltage recognition		No

<ul style="list-style-type: none"> • phase sequence recognition • phase disturbance recognition • asymmetry recognition • overvoltage recognition of 3 phases • undervoltage recognition of 3 phases • tension window recognition of 3 phases • self-reset • open-circuit or closed-circuit current principle 		Yes
		Yes
		Yes
		No
		Yes
		No
		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 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	160 ... 690
	V	160 ... 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 ... 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 	°C	-25 ... +60

• during storage	°C	-40 ... +85
• during transport	°C	-40 ... +85
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	94
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 racks 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		snap-on mounting
Product function / removable terminal for auxiliary and control circuit		Yes
Design of the electrical connection		spring-loaded terminals
Type of the connectable conductor cross-section		
• solid		2x (0.25 ... 1.5 mm²)
• finely stranded		
• with wire end processing		2 x (0.25 ... 1.5 mm²)
• without wire end processing		2x (0.25 ... 1.5 mm²)
• for AWG conductors		







- solid
- stranded

2x (24 ... 16)
2x (24 ... 16)

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
Thermal current / of the contact-affected switching element / 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 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	
			Special Test Certificate	
CCC	GOST	C-TICK		
Shipping Approval			other	
			Declaration of Conformity	other
DNV	GL	LRS		

Further information:

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

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

Industry Mall (Online ordering system)

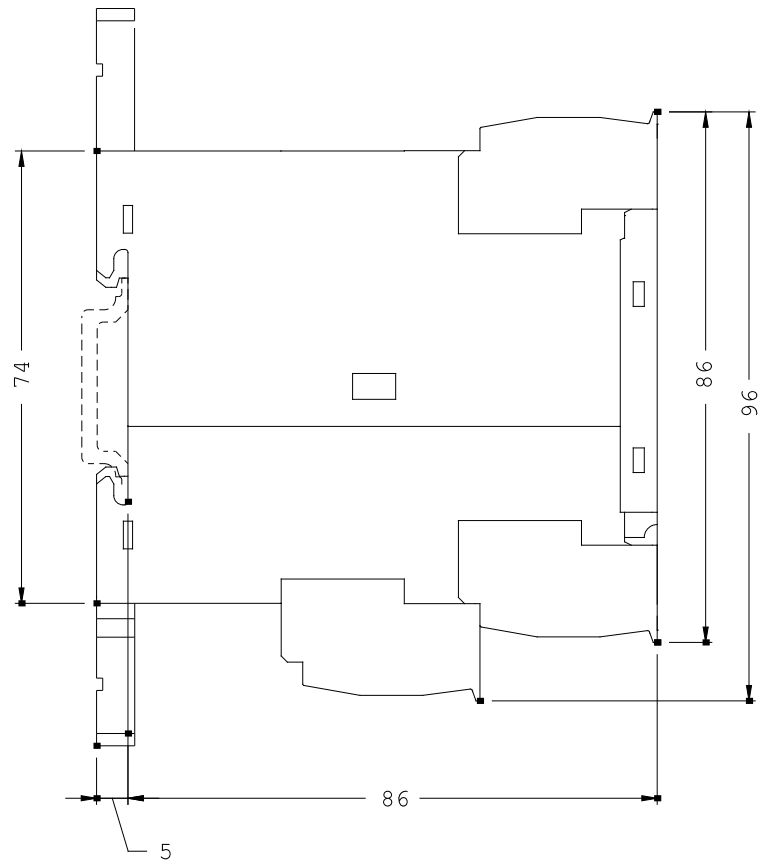
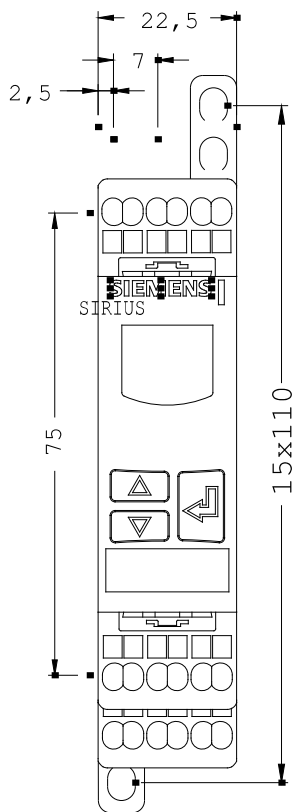
<http://www.siemens.com/industrial-controls/mall>

Cax online generator:

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

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

<http://support.automation.siemens.com/WW/view/en/3UG4614-2BR20/all>



last change:

Feb 18, 2013