



DIGITAL MONITORING RELAY COS-PHI A. CURRENT MONITORING FROM 90 TO 690V AC OVERSHOOT AND UNDERSHOOT INTERNAL POWER SUPPLY AC 50 TO 60 HZ SPIKE DELAY 0.1 TO 20S HYSTERESIS W. (I) 0.1 TO 2A 2 CHANGEOVER CONTACTS W. OR W/O ERROR LOG SPRING-LOADED TYPE

Product function	Active power monitoring relay
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Measuring circuit:

Number of poles for main current circuit		2
Phase number		1
Adaptable response value phase displacement angle	°	0.1 ... 0.99
Type of current for monitoring		AC
Measurable current	A	0.2 ... 10
Adjustable response value current		
• 1	A	0.2 ... 10
• 2	A	0.2 ... 10
Adjustable response delay time		
• when starting	s	0 ... 99
• with lower or upper limit violation	s	0.1 ... 20
Adjustable switching hysteresis for measured current value	mA	100 ... 2 000
Buffering time in the event of power failure minimum	ms	10
Operating voltage Rated value	V	90 ... 690
Relative metering precision	%	10
Accuracy of digital display		+/-1 digit
Relative repeat accuracy	%	1

General technical data:

Design of the display	LCD
Product function	
• Overcurrent detection 1 phase	Yes
• undercurrent detection 1 phase	Yes

<ul style="list-style-type: none"> • External reset 		Yes
<ul style="list-style-type: none"> • Adjustable open/closed-circuit current principle 		Yes
Startup time after the control supply voltage has been applied	ms	1 000
Response time maximum	s	0.3
Type of voltage of the control supply voltage		AC
Control supply voltage		
<ul style="list-style-type: none"> • with AC <ul style="list-style-type: none"> — at 50 Hz Rated value — at 60 Hz Rated value 	V V	90 ... 690 90 ... 690
Operating range factor control supply voltage rated value		
<ul style="list-style-type: none"> • with AC <ul style="list-style-type: none"> — at 50 Hz — at 60 Hz 		1 ... 1 1 ... 1
Surge voltage resistance Rated value	kV	6
Active power consumption	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 • during transport 	°C °C °C	-25 ... +60 -40 ... +85 -40 ... +85
Galvanic isolation		
<ul style="list-style-type: none"> • between entrance and outlet • between the outputs • between the voltage supply and other circuits 		Yes Yes Yes
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

Mechanical data:





Width	mm	22.5
Height	mm	103
Depth	mm	91
mounting position		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
Mounting type		snap-on mounting
Product function removable terminal for auxiliary and control circuit		Yes
Type of electrical connection		spring-loaded terminals
Type of connectable conductor cross-section		
• solid		2x (0.25 ... 1.5 mm ²)
• finely stranded		
— with core end processing		2 x (0.25 ... 1.5 mm ²)
— without core end processing		2x (0.25 ... 1.5 mm ²)
• for AWG conductors		
— solid		2x (24 ... 16)
— stranded		2x (24 ... 16)




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
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 switching element with contacts maximum	A	5

Certificates/ approvals:

General Product Approval	EMC	Test Certificates
 CCC		 UL
	 C-TICK	Type Test Certificates/Test Report
		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/industrymall>

Cax online generator

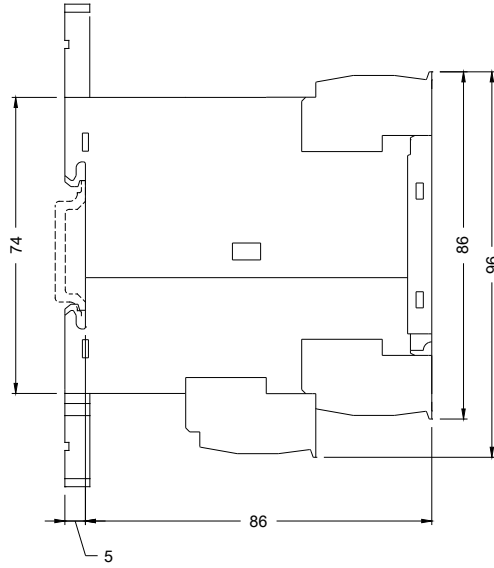
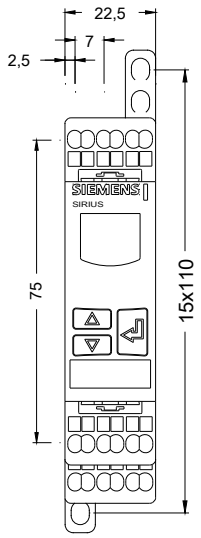
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG46412CS20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG46412CS20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG46412CS20&lang=en



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16.03.2015