SIEMENS

Product data sheet 3UG4641-1CS20

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 SCREW TERMINAL REPLACEMENT PRODUCT F. 3UG3014

Product function		Active power monitoring relay
Measuring circuit:		
Number of poles / for main current circuit		2
Phase number		1
Adaptable response value phase angle	°	0.1 … 0.99
Type of current / for monitoring		AC
Measurable current	A	0.2 … 10
Adjustable response 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
Stored energy time / at mains power cut / minimum	ms	10
Operating voltage		
• rated value	V	90 … 690
Relative metering precision	%	10
Precision of digital display		+/-1 digit
Relative repeat accuracy	%	1

General technical details:		
Design of the display		LCD
Product function		
• overcurrent recognition of 1 phase		Yes
• undercurrent recognition of 1 phase		Yes
• reset external		Yes
• open-circuit or closed-circuit current principle		Yes
Starting time / after the control supply voltage has been applied	ms	1,000
Response time / maximum	s	0.3
Type of voltage / of the controlled supply voltage		AC
Control supply voltage		
• at 50 Hz / at AC		
• rated value	V	90 … 690
• at 60 Hz / at AC		
• rated value	V	90 … 690
Operating range factor control supply voltage rated value		
• at 50 Hz		
• for AC		1 … 1
• at 60 Hz		
• for AC		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		
• 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 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

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
• sidewards	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• sidewards	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• sidewards	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		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	1.2 ... 0.8

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

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:

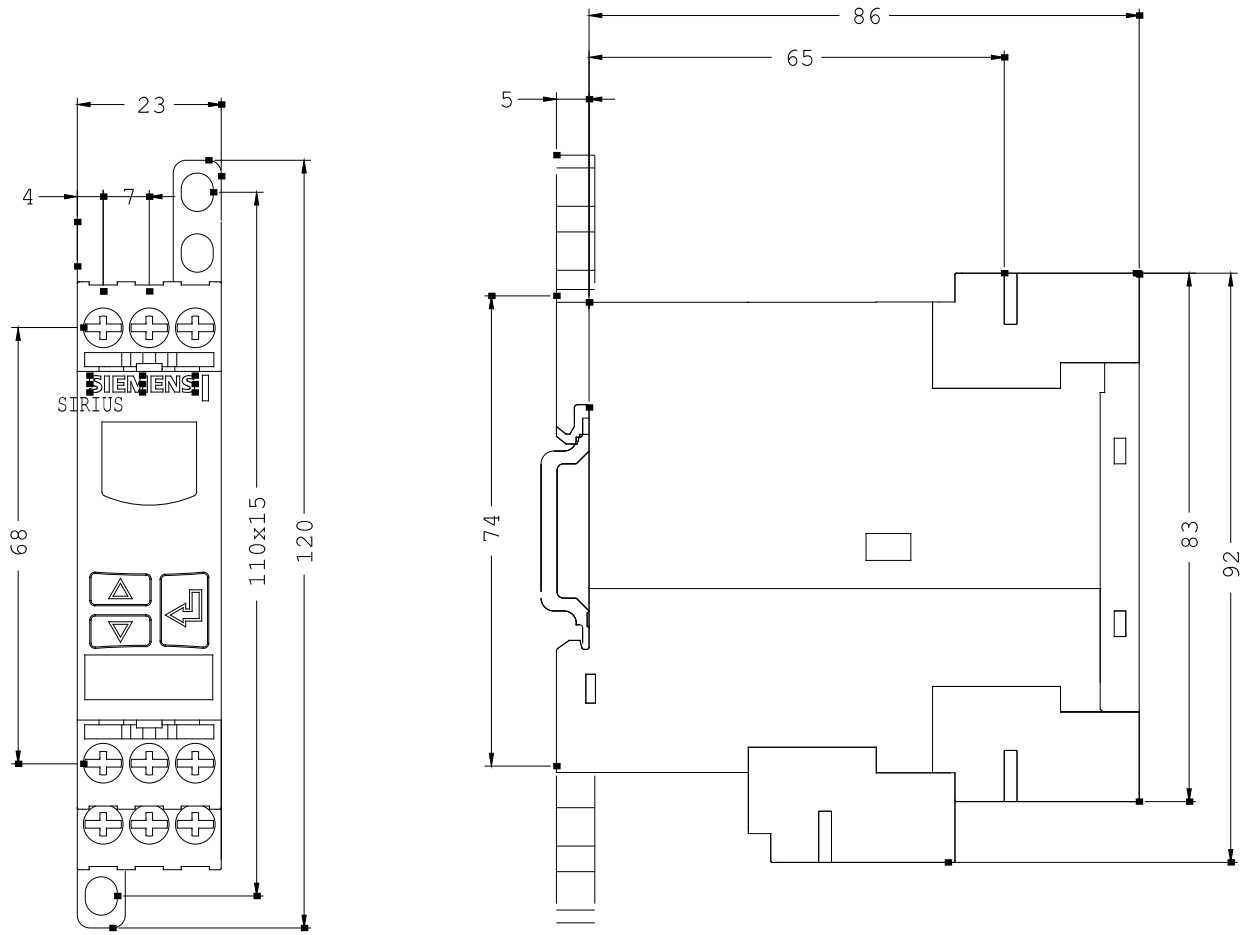
Information- and Downloadcenter (Catalogs, Brochures,...)
http://www.siemens.com/industrial-controls/catalogs

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/3UG4641-1CS20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UG4641-1CS20



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