SIEMENS

Data sheet 3UG4621-1AA30

Digital monitoring relay Current monitoring, 22.5 mm from 2-500 mA AC/DC 0vershoot and undershoot Supply voltage: 24 V AC/DC 50 to 60 Hz DC and AC without galvanic isolation to measuring circuit ON delay and noise pulses delay 0.1 to 20 s Hysteresis 0.1 to 250 mA 1 change-over contact with or without fault buffer screw terminal Successor product for 3UG3521-1AC..

product brand name	SIRIUS
product designation	Current monitoring relay with digital setting
product type designation	3UG4
General technical data	
product function	Current monitoring relay
design of the display	LCD
insulation voltage for overvoltage category III according to IEC 60664	
● with degree of pollution 3 rated value	690 V
degree of pollution	3
surge voltage resistance rated value	4 kV
maximum permissible voltage for safe isolation	
● between auxiliary and auxiliary circuit	300 V
● between control and auxiliary circuit	300 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
relative repeat accuracy	1 %
Substance Prohibitance (Date)	05/01/2012
Product Function	
product function	
● overcurrent detection 1 phase	Yes
● overcurrent detection 3 phase	No
● undercurrent detection 1 phase	Yes
● undercurrent detection 3 phases	No
● overcurrent detection DC	Yes
● undercurrent detection DC	Yes
● current window recognition DC	Yes
● voltage window recognition 1 phase	No
● voltage window recognition 3 phase	No
● adjustable open/closed-circuit current principle	Yes
● external reset	Yes
● auto-RESET	Yes
Supply voltage	

type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
● at 50 Hz rated value	24 V
● at 50 Hz	20.4 ... 26.4 V
● at 60 Hz rated value	24 V
● at 60 Hz	20.4 ... 26.4 V
supply voltage 1 at DC	20.4 ... 26.4 V
supply voltage 1 at DC rated value	24 V
Measuring circuit	
type of current for monitoring	AC/DC
measurable current	0.003 ... 0.6 A
measurable line frequency	40 ... 500 Hz
adjustable current response value current	
● 1	0.003 ... 0.5 A
● 2	0.003 ... 0.5 A
adjustable response delay time	
● when starting	0.1 ... 20 s
● with lower or upper limit violation	0.1 ... 20 s
adjustable switching hysteresis for measured current value	0.1 ... 250 mA
buffering time in the event of power failure minimum	10 ms
accuracy of digital display	+/-1 digit
relative temperature-related measurement deviation	5 %
internal resistance of the measuring circuit	500 mΩ
Precision	
relative metering precision	5 %
temperature drift per °C	0.1 %/°C
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
number of poles for main current circuit	1
operating voltage rated value	24 ... 24 V
ampacity of the output relay at AC-15	
● at 250 V at 50/60 Hz	3 A
● at 400 V at 50/60 Hz	3 A
ampacity of the output relay at DC-13	
● at 24 V	1 A
● at 125 V	0.2 A
● at 250 V	0.1 A
operational current at 17 V minimum	0.005 A
continuous current of the DIAZED fuse link of the output relay	4 A
Electromagnetic compatibility	
conducted interference	
● due to burst according to IEC 61000-4-4	2 kV
● due to conductor-earth surge according to IEC 61000-4-5	2 kV
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
design of the electrical isolation	Protective separation
galvanic isolation	
● between input and output	Yes
● between the outputs	Yes
● between the voltage supply and other circuits	No

Connections/ Terminals	
product component removable terminal for main circuit	Yes
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
● solid	1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)
● finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
● at AWG cables solid	2x (20 ... 14)
● at AWG cables stranded	2x (20 ... 14)
connectable conductor cross-section	
● solid	0.5 ... 4 mm²
● finely stranded with core end processing	0.5 ... 2.5 mm²
AWG number as coded connectable conductor cross section	
● solid	20 ... 14
● stranded	20 ... 14
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	92 mm
width	22.5 mm
depth	91 mm
required spacing	
● with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
● for grounded parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
● for live parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	-25 ... +60 °C
● during storage	-40 ... +85 °C
● during transport	-40 ... +85 °C

Certificates/ approvals

General Product Approval			EMC	Declaration of Conformity
Confirmation				

Test Certificates		Marine / Shipping		other	Railway
Special Test Certific-ate	Type Test Certific-ates/Test Report			Confirmation	Vibration and Shock

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4621-1AA30
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4621-1AA30
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AA30
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4621-1AA30&lang=en
Characteristic: Derating
https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-1AA30/manual

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