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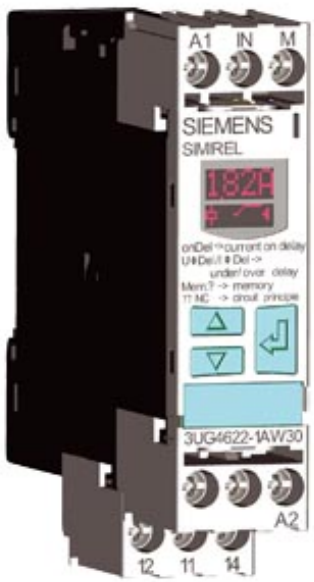
Data sheet 3UG4622-1AW30



Digital monitoring relay Current monitoring, 22.5 mm from 0.05-10 A AC/DC 0vershoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC ON delay and noise pulses delay 0.1 to 20 s Hysteresis 0.01 to 5 A 1 change-over contact with or without fault buffer screw terminal Successor product for 3UG3522-1AL20, 3UG3522-1AG20 and 3UG3522-1AC48-0AA1

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	
• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
Vibration resistance	

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• acc. 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 acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	1 %

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	24 ... 240 V
• at 60 Hz	240 ... 24 V
Supply voltage 1 at DC	24 ... 240 V

Measuring circuit

Type of current for monitoring	AC/DC
Measurable current	0.05 ... 15 A
Measurable line frequency	40 ... 500 Hz
Adjustable pick-up value current	
• 1	0.05 ... 10 A
• 2	0.05 ... 10 A
Adjustable response delay time	
• when starting	0.1 ... 20 s

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• with lower or upper limit violation	0.1 ... 20 s
Adjustable switching hysteresis for measured current value	10 ... 5 000 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	5 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 ... 240 V
Outputs	
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
Operating 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 acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m

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Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Galvanic isolation

Design of the electrical isolation	Safe isolation
Galvanic isolation	
• between entrance and outlet	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	Yes

Connections/ Terminals

Product function	
• removable terminal for main circuit	Yes
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current 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 conductors solid	2x (20 ... 14)
• at AWG conductors 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
Mounting type	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

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— 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

Certificates/ approvals

General Product Approval			EMC	Declaration of Conformity	
					Miscellaneous

CCC UL RCM EG-Konf.

Test Certificates		Marine / Shipping		other	Railway
Special Test Certificate	Type Test Certificates/Test Report			Confirmation	Vibration and Shock

LRS

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4622-1AW30

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4622-1AW30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG4622-1AW30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4622-1AW30&lang=en

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