SIEMENS

Data sheet

3UG4633-1AL30



Digital monitoring relay Voltage monitoring, 22.5 mm from 17-275 V AC/DC Overshoot and undershoot Self-powered Spike delay 0.1 to 20 s Hysteresis 0.1 to 150 V 1 CO contact With or without error buffer Screw terminals Successor product for 3UG3534, 3UG3535

	sim	

product brand name	SIRIUS			
product designation	Voltage monitoring relay with digital setting			
product type designation	3UG4			
General technical data				
product function	Voltage 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			
type of voltage				
• for monitoring	AC/DC			
 of the control supply voltage 	AC/DC			
surge voltage resistance rated value	4 kV			
maximum permissible voltage for protective separation				
 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 (operating cycles) typical	10 000 000			
electrical endurance (operating 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	К			
relative repeat accuracy	1 %			
Substance Prohibitance (Date)	05/01/2012			
Product Function				
product function				
 undervoltage detection 	Yes			
 overvoltage detection 	Yes			
 overvoltage detection 1 phase 	Yes			
 overvoltage detection 3 phase 	No			
 overvoltage detection DC 	Yes			
 undervoltage detection 1 phase 	Yes			
 undervoltage detection 3 phases 	No			
 undervoltage detection DC 	Yes			
 voltage window recognition 1 phase 	Yes			
 voltage window recognition 3 phase 	No			
 voltage window recognition DC 	Yes			

a adjustable open/sleeped sizewit surrent principle	Voc
adjustable open/closed-circuit current principle	Yes
external reset	Yes
auto-RESET	Yes
Control circuit/ Control	
control supply voltage at AC	47 075 \/
• at 50 Hz rated value	17 275 V
at 60 Hz rated value	17 275 V
control supply voltage at DC	47 075 \/
rated value	17 275 V
operating range factor control supply voltage rated value at DC	
• initial value	1
• full-scale value	1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	1
full-scale value	1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	1
• full-scale value	1
Measuring circuit	
measurable line frequency	40 500 Hz
measurable voltage at AC	17 275 V
measurable voltage at DC	17 275 V
adjustable response delay time	
when starting	0.1 20 s
with lower or upper limit violation	0.1 20 s
accuracy of digital display	+/-1 digit
relative temperature-related measurement deviation	0.1 %
Precision	
relative metering precision	5 %
relative metering precision Auxiliary circuit	5 %
Auxiliary circuit	
Auxiliary circuit number of NC contacts delayed switching	5 % 0 0
Auxiliary circuit	0
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching	0 0
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching	0 0 1
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit	0 0 1 5 000 1/h
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit	0 0 1 5 000 1/h 1
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit	0 0 1 5 000 1/h
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz	0 0 1 5 000 1/h 1
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13	0 0 1 5 000 1/h 1 3 A
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V	0 0 1 5 000 1/h 1 3 A 1 A
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 KV
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • field-based interference according to IEC 61000-4-3	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 1 kV 10 V/m
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 1 kV 10 V/m
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation design of the electrical isolation galvanic isolation	0 0 1 5 000 1/h 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Protective separation
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation design of the electrical isolation eletween input and output	0 0 1 5 000 1/h 1 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Protective separation Yes
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation ebetween input and output • between the outputs	0 0 1 5 000 1/h 1 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Protective separation Yes Yes
Auxiliary circuit number of NC contacts delayed switching number of NO contacts delayed switching number of CO contacts delayed switching operating frequency with 3RT2 contactor maximum Main circuit number of poles for main current circuit ampacity of the output relay at AC-15 at 400 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V operational current at 17 V minimum continuous current of the DIAZED fuse link of the output relay Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation design of the electrical isolation eletween input and output	0 0 1 5 000 1/h 1 1 3 A 1 A 0.2 A 0.1 A 5 mA 4 A 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Protective separation Yes

product component removable terminal for auxiliary and control circuit	Yes		
type of electrical connection	screw-type terminals		
type of connectable conductor cross-sections			
• solid	1x (0.5 4 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)		
for AWG cables solid	2x (20 14)		
• for 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 mm ²		
AWG number as coded connectable conductor cross section			
• solid	20 14		
stranded	20 14		
tightening torque with screw-type terminals	1.2 0.8 N·m		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	any		
	snap-on mounting		
height	92 mm		
width	22.5 mm 91 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		
— 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 Con- formity		
Confirmation	rnr A LIK		
<u>(</u>			
Declaration of Con- formity Test Certificates	Marine / Shipping other		



Type Test Certificates/Test Report Special Test Certificate





Confirmation

Railway

Vibration and Shock

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3UG4633-1AL30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4633-1AL30

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

https://support.industry.siemens.com/cs/ww/en/ps/3UG4633-1AL30

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4633-1AL30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG4633-1AL30/manual

last modified:

11/29/2022 🖸

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens: 3UG46331AL30