SIEMENS

product brand name

Data sheet 3UG4633-2AL30

SIRIUS



Digital monitoring relay Voltage monitoring, 22.5 mm from 17-275 V AC/DC Overshoot and undershoot self-supplied Noise pulses delay 0.1 to 20 s Hysteresis 0.1 to 150 V 1 changeover contact spring-type connection system spring-type connection system

product function design of the display Insulation voltage for overvoltage category III according to IEC 60664 • with degree of pollution 3 rated value • for monitoring • of the control supply voltage average voltage resistance rated value maximum permissible voltage for safe isolation • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between control electroic lass IP shock resistance acc. to IEC 60068-2-27 vibration resistance acc. to IEC 60068-2-6 mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 reference code acc. to IEC 81346-2 relative repeat accuracy Substance Prohibitance (Date)	product brand name	SIRIUS			
Voltage monitoring relay Voltage monitoring relay	product designation	Voltage monitoring relay with digital setting			
voltage monitoring relay LCD	product type designation	3UG4			
design of the display insulation voltage for overvoltage category III according to IEC 60664 • with degree of pollution 3 rated value • for monitoring • of monitoring • of the control supply voltage **Surge voltage resistance rated value **Maximum permissible voltage for safe isolation • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between carc. to IEC 60068-2-7 **vibration resistance acc. to IEC 60068-2-6 **mechanical service life (switching cycles) typical **lectrical endurance (switching cycles) at AC-15 at 230 V typical **reference code acc. to IEC 81346-2 **relative repeat accuracy **product function **product function • undervoltage detection 1 phase • overvoltage detection 2 phase • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection DC • undervoltage detection DC • voltage window recognition 3 phase • undervoltage detection DC • voltage window recognition 1 phase • voltage window recognition 1 phase • voltage window recognition 3 phase • voltage window recognition 1 phase • voltage window recognition 1 phase • voltage window recognition 2 phase • voltage window recognition 3 phase • voltage window recognition 2 Pyes • voltage window recognition 2 phase • voltage window recognition 3 phase • voltage window recognition 3 phase	General technical data				
insulation voltage for overvoltage category III according to IEC 60664 • with degree of pollution 3 rated value • for monitoring • of the control supply voltage • of the control supply voltage surge voltage resistance rated value • between auxiliary and auxiliary circuit • between control auxiliary circuit • between control auxiliary circuit • between auxiliary and auxiliary circuit • between control auxiliary circuit • a000 V protection class IP • IP20 • In ms • loop (switching cycles) typical • 10000 000 • 10000 000 • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • loop (switching cycles) at AC-15 at 230 V typical • lo	product function	Voltage monitoring relay			
iEC 60684 ● with degree of pollution 3 rated value ● for monitoring ● for monitoring ● of the control supply voltage ■ with degree of supply voltage ● for monitoring ● of the control supply voltage ■ AC/DC surge voltage resistance rated value ■ Ak W ■ waximum permissible voltage for safe isolation ■ between auxiliary and auxiliary circuit ■ between control and auxiliary circuit ■ between control and auxiliary circuit ■ between control and auxiliary circuit ■ between cac. to IEC 60068-2-27 ■ sinusoidal half-wave 15g / 11 ms vibration resistance acc. to IEC 60068-2-6 ■ 1 6 Hz: 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical ■ lectrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 ■ K relative repeat accuracy ■ 1% Substance Prohibitance (Date) Product Function ● undervoltage detection ● overvoltage detection ● overvoltage detection ● overvoltage detection 1 phase ● overvoltage detection 1 phase ● overvoltage detection 1 phase ● overvoltage detection 3 phase ● undervoltage detection 1 phase ● undervoltage detection 3 phase ● undervoltage detection 1 phase ● undervoltage detection 1 phase ● undervoltage detection 3 phase ● undervoltage detection 1 phase ● undervoltage detection 3 phase ● voltage window recognition 1 phase ● voltage window recognition 1 phase ● voltage window recognition 3 phase ● voltage window recognition 3 phase ● voltage window recognition 1 phase ● voltage window recognition 1 phase ● voltage window recognition 2 Pyes ● voltage window recognition 3 phase ● voltage window recognition 1 phase ● voltage window recognition 2 Pyes	design of the display	LCD			
type of voltage					
of the control supply voltage of the control supply voltage surge voltage resistance rated value maximum permissible voltage for safe isolation obetween auxiliary and auxiliary circuit obetween control obetween control of o	 with degree of pollution 3 rated value 	690 V			
of the control supply voltage surge voltage resistance rated value maximum permissible voltage for safe isolation	type of voltage				
surge voltage resistance rated value maximum permissible voltage for safe isolation • between auxiliary and auxiliary circuit • between control and auxiliary circuit • soo V protection class IP shock resistance acc. to IEC 60068-2-7 sinusoidal half-wave 15g / 11 ms vibration resistance acc. to IEC 60068-2-6 1 6 Hz: 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 relative repeat accuracy 1 % Substance Prohibitance (Date) roduct Function product Function • undervoltage detection • undervoltage detection • overvoltage detection 1 phase • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • undervoltage detection 1 phase • undervoltage detection 1 phase • undervoltage detection DC • undervoltage detection DC • voltage window recognition 1 phase • voltage window recognition 3 phase • voltage window recognition 3 phase • voltage window recognition DC • voltage window recognition DC • adjustable open/closed-circuit current principle Yes	for monitoring	AC/DC			
maximum permissible voltage for safe isolation • between auxiliary and auxiliary circuit • between control and auxiliary circuit • soo V protection class IP IP20 IP20 IP20	of the control supply voltage	AC/DC			
between auxiliary and auxiliary circuit between control and auxiliary circuit between control and auxiliary circuit 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 acc. to IEC 60068-2-6 1 6 Hz: 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical electrical endurance (switching cycles) typical 10 000 000 electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 K relative repeat accuracy 1 % Substance Prohibitance (Date) 01.05.2012 00:00:00 roduct Function product function ves overvoltage detection Yes overvoltage detection 1 phase vervoltage detection 3 phase voervoltage detection 1 phase vervoltage detection 1 phase vervoltage detection 1 phase vervoltage detection 1 phase vervoltage detection 3 phases No oundervoltage detection DC Yes undervoltage detection DC Yes undervoltage detection DC Yes voltage window recognition 1 phase Ves voltage window recognition 3 phase No voltage window recognition DC Yes adjustable open/closed-circuit current principle	surge voltage resistance rated value	4 kV			
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shock resistance acc. to IEC 60068-2-27 sinusoidal half-wave 15g / 11 ms vibration resistance acc. to IEC 60068-2-6 1 6 Hz: 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 K relative repeat accuracy 1 % Substance Prohibitance (Date) 01.05.2012 00:00:00 roduct Function • undervoltage detection • overvoltage detection • overvoltage detection 1 phase • overvoltage detection 2 yes • overvoltage detection 3 phase • overvoltage detection DC • undervoltage detection 1 phase • undervoltage detection 1 phase • ves • undervoltage detection 3 phase • voltage window recognition 1 phase • voltage window recognition DC • voltage window recognition DC • voltage window recognition DC • adjustable open/closed-circuit current principle	between control and auxiliary circuit	300 V			
vibration resistance acc. to IEC 60068-2-6 mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 reference code acc. to IEC 81346-2 K relative repeat accuracy Substance Prohibitance (Date) roduct Function oundervoltage detection overvoltage detection overvoltage detection 1 phase overvoltage detection 3 phase overvoltage detection 1 phase overvoltage detection 1 phase overvoltage detection 1 phase overvoltage detection 1 phase overvoltage detection 3 phase overvoltage detection 1 phase ves oundervoltage detection 3 phases oundervoltage detection 1 phase ves oundervoltage detection 1 phase ves oundervoltage detection 1 phase ves oundervoltage detection 3 phases voltage window recognition 1 phase voltage window recognition 1 phase voltage window recognition 3 phase voltage window recognition DC voltage window recognition DC adjustable open/closed-circuit current principle ves	protection class IP	IP20			
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electrical endurance (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 Relative repeat accuracy Substance Prohibitance (Date) reduct Function reduct function • undervoltage detection • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • ves • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • ves • undervoltage detection 3 phases • ves • undervoltage detection 3 phases • ves • undervoltage detection DC • ves • undervoltage detection DC • voltage window recognition 1 phase • voltage window recognition 3 phase • voltage window recognition 3 phase • voltage window recognition DC • voltage window recognition DC • adjustable open/closed-circuit current principle Yes	vibration resistance acc. to IEC 60068-2-6	1 6 Hz: 15 mm, 6 500 Hz: 2g			
reference code acc. to IEC 81346-2 Relative repeat accuracy Substance Prohibitance (Date) Product Function Product function • undervoltage detection • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection DC • undervoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • ves • overvoltage detection 1 phase • ves • overvoltage detection 1 phase • ves • undervoltage detection 1 phase • undervoltage detection 3 phases • voltage window recognition 1 phase • voltage window recognition 3 phase • voltage window recognition 3 phase • voltage window recognition DC • adjustable open/closed-circuit current principle Yes	mechanical service life (switching cycles) typical	10 000 000			
relative repeat accuracy Substance Prohibitance (Date) Product Function Product function • undervoltage detection • overvoltage detection 1 phase • overvoltage detection 3 phase • overvoltage detection 1 phase • overvoltage detection DC • undervoltage detection 1 phase • overvoltage detection DC • yes • undervoltage detection 1 phase • undervoltage detection 1 phase • undervoltage detection 1 phase • ves • undervoltage detection 3 phases • voltage window recognition 1 phase • voltage window recognition 3 phase • voltage window recognition DC • adjustable open/closed-circuit current principle Yes	`	100 000			
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product function undervoltage detection	Substance Prohibitance (Date)	01.05.2012 00:00:00			
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 voltage window recognition 1 phase voltage window recognition 3 phase voltage window recognition DC voltage window recognition DC adjustable open/closed-circuit current principle Yes 	 undervoltage detection 3 phases 	No			
 voltage window recognition 3 phase voltage window recognition DC adjustable open/closed-circuit current principle No Yes Yes	 undervoltage detection DC 	Yes			
 voltage window recognition DC adjustable open/closed-circuit current principle Yes 	 voltage window recognition 1 phase 	Yes			
adjustable open/closed-circuit current principle Yes	 voltage window recognition 3 phase 	No			
	 voltage window recognition DC 	Yes			
• external reset	 adjustable open/closed-circuit current principle 	Yes			
	external reset	Yes			

• auto-RESET	Yes
Control circuit/ Control	
control supply voltage at AC	
at 50 Hz rated value	17 275 V
at 60 Hz rated value	17 275 V
control supply voltage at DC	
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	500 40 Hz
measurable voltage at DC	17 275 V
adjustable response delay time	0.4 00 -
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	F 0/
relative metering precision	5 %
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 Main circuit	5 000 1/h
	1
number of poles for main current circuit	1
Outputs	F == A
operational current at 17 V minimum	5 mA
continuous current of the DIAZED fuse link of the output relay	4 A
Electromagnetic compatibility	
conducted interference	2 4.7
due to burst acc. to IEC 61000-4-4 due to conductor earth surge acc. to IEC 61000 4.5	2 kV
due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor conductor surge acc. to IEC	2 kV
 due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. 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 auxiliary and control circuit	Yes
type of electrical connection	spring-loaded terminals
type of connectable conductor cross-sections	
• solid	2x (0.25 1.5 mm²)

finely stranded with core end processing	2 x ((0.25 1.5 mm²)					
finely stranded without core end processing		0.25 1.5 mm²)					
at AWG cables solid		2x (0.25 1.5 min ⁻) 2x (24 16)					
at AWG cables stranded		2x (24 16)					
connectable conductor cross-section	-	,					
• solid	0.25	1.5 mm²					
 finely stranded with core end processing 	0.25	1.5 mm²					
finely stranded without core end processing	0.25	1.5 mm²					
AWG number as coded connectable conductor cross section							
• solid	24	. 16					
stranded	24	. 16					
Installation/ mounting/ dimensions							
mounting position	any						
fastening method	snap	on mounting					
height	94 m	ım					
width	22.5	mm					
depth	91 m	ım					
required spacing							
with side-by-side mounting							
— forwards	0 mn	n					
— backwards	0 mn	n					
— upwards	0 mn	n					
— downwards	0 mn	n					
— at the side	0 mm						
 for grounded parts 							
— forwards	0 mn	n					
— backwards	0 mn	n					
— upwards	0 mn	n					
— at the side	0 mn	n					
— downwards	0 mn	n					
• for live parts							
— forwards	0 mn						
— backwards	0 mn	n					
— upwards	0 mn						
— at the side	0 mn	n ————————————————————————————————————					
Ambient conditions							
installation altitude at height above sea level maximum	2 000	0 m					
ambient temperature							
during operation		+60 °C					
during storage		-40 °C					
during transport	85	40 °C					
Certificates/ approvals							
General Product Approval		EMC	Declaration of Conformity	Test Certificates			











Type Test Certificates/Test Report

Test Certificates

Marine / Shipping

other

Railway

Special Test Certificate





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=3UG4633-2AL30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4633-2AL30

 ${\bf Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)}$

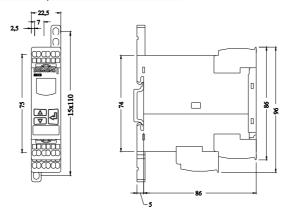
https://support.industry.siemens.com/cs/ww/en/ps/3UG4633-2AL30

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4633-2AL30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG4633-2AL30/manual



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