



Digital monitoring relay Asymmetry 0-20% Phase sequence can be activated Phase failure 3 x 160 to 690 V 50 to 60 Hz AC Undervoltage 160-690 V Hysteresis 1-20 V ON and OFF delay 0-20 s 2 change-over contacts spring-type connection system

product brand name	SIRIUS																				
product designation	Network monitoring relay with digital setting																				
design of the product	4 functions																				
product type designation	3UG4																				
General technical data																					
product function	Phase monitoring relay																				
display version LED	No																				
design of the display	LCD																				
insulation voltage for overvoltage category III according to IEC 60664	690 V																				
<ul style="list-style-type: none"> with degree of pollution 3 rated value 																					
degree of pollution	3																				
type of voltage	AC																				
<ul style="list-style-type: none"> for monitoring of the control supply voltage 																					
surge voltage resistance rated value	6 kV																				
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	<table border="0"> <tr><td>• undervoltage detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection</td><td>No</td></tr> <tr><td>• phase sequence recognition</td><td>Yes</td></tr> <tr><td>• phase failure detection</td><td>Yes</td></tr> <tr><td>• asymmetry detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection 3 phase</td><td>No</td></tr> <tr><td>• undervoltage detection 3 phases</td><td>Yes</td></tr> <tr><td>• voltage window recognition 3 phase</td><td>No</td></tr> <tr><td>• adjustable open/closed-circuit current principle</td><td>Yes</td></tr> <tr><td>• auto-RESET</td><td>Yes</td></tr> </table>	• undervoltage detection	Yes	• overvoltage detection	No	• phase sequence recognition	Yes	• phase failure detection	Yes	• asymmetry detection	Yes	• overvoltage detection 3 phase	No	• undervoltage detection 3 phases	Yes	• voltage window recognition 3 phase	No	• adjustable open/closed-circuit current principle	Yes	• auto-RESET	Yes
• undervoltage detection		Yes																			
• overvoltage detection		No																			
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Control circuit/ Control																					

control supply voltage at AC	
<ul style="list-style-type: none"> at 50 Hz rated value at 60 Hz rated value 	160 ... 690 V 160 ... 690 V
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> initial value full-scale value 	1 1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> initial value full-scale value 	1 1
Measuring circuit	
measurable voltage at AC	690 ... 160 V
adjustable response delay time	
<ul style="list-style-type: none"> when starting with lower or upper limit violation 	0.1 ... 20 s 0.1 ... 20 s
accuracy of digital display	+/-1 digit
Precision	
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	2
operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
number of poles for main current circuit	3
ampacity of the output relay at AC-15	
<ul style="list-style-type: none"> at 250 V at 50/60 Hz at 400 V at 50/60 Hz 	3 A 3 A
ampacity of the output relay at DC-13	
<ul style="list-style-type: none"> at 24 V at 125 V at 250 V 	1 A 0.2 A 0.1 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	
<ul style="list-style-type: none"> 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 	2 kV 2 kV 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	
galvanic isolation	
<ul style="list-style-type: none"> between input and output between the outputs between the voltage supply and other circuits 	Yes Yes Yes
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	
<ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing at AWG cables solid at AWG cables stranded 	2x (0.25 ... 1.5 mm ²) 2 x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (24 ... 16) 2x (24 ... 16)
connectable conductor cross-section	

<ul style="list-style-type: none"> • solid 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • finely stranded without core end processing 	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	24 ... 16
<ul style="list-style-type: none"> • stranded 	24 ... 16

Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	94 mm
width	22.5 mm
depth	91 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm

Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C

Certificates/ approvals		
General Product Approval	EMC	Declaration of Conformity

[Confirmation](#)



Test Certificates	Marine / Shipping	other	Railway
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[Type Test Certificates/Test Report](#)

[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?mfb=3UG4614-2BR20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4614-2BR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-2BR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4614-2BR20&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-2BR20/manual>

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