## **SIEMENS**

Data sheet 3UG4614-2BR20



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

Figure similar

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	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					
<ul> <li>with degree of pollution 3 rated value</li> </ul>	690 V				
degree of pollution	3				
type of voltage					
• for monitoring	AC				
of the control supply voltage	AC				
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 (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	K				
relative repeat accuracy	1 %				
Substance Prohibitance (Date)	05/01/2012				
Product Function					
product function					
<ul> <li>undervoltage detection</li> </ul>	Yes				
<ul> <li>overvoltage detection</li> </ul>	No				
<ul> <li>phase sequence recognition</li> </ul>	Yes				
<ul> <li>phase failure detection</li> </ul>	Yes				
<ul> <li>asymmetry detection</li> </ul>	Yes				
<ul> <li>overvoltage detection 3 phase</li> </ul>	No				
<ul> <li>undervoltage detection 3 phases</li> </ul>	Yes				
<ul> <li>voltage window recognition 3 phase</li> </ul>	No				
<ul> <li>adjustable open/closed-circuit current principle</li> </ul>	Yes				
• auto-RESET	Yes				
Control circuit/ Control					

control supply voltage at AC			
• at 50 Hz rated value	160 690 V		
at 60 Hz rated value	160 690 V		
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 voltage at AC	160 690 V		
adjustable response delay time			
when starting	0.1 20 s		
<ul> <li>with lower or upper limit violation</li> </ul>	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	•		
	2		
for auxiliary contacts     delayed switching	2		
delayed switching  Operating frequency with 3PT2 contactor maximum			
operating frequency with 3RT2 contactor maximum  Main circuit	5 000 1/h		
number of poles for main current circuit	3		
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	5 mA		
continuous current of the DIAZED fuse link of the output relay	4 A		
Electromagnetic compatibility			
conducted interference			
	2 kV		
due to burst according to IEC 61000-4-4      due to conductor couth surger according to IEC 61000 4.5			
due to conductor-earth surge according to IEC 61000-4-5     due to conductor conductor surge according to IEC.	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			
galvanic isolation			
<ul> <li>between input and output</li> </ul>	Yes		
<ul> <li>between the outputs</li> </ul>	Yes		
<ul> <li>between the voltage supply and other circuits</li> </ul>	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			
• solid	2x (0.25 1.5 mm²)		
<ul> <li>finely stranded with core end processing</li> </ul>	2 x (0.25 1.5 mm²)		
finely stranded without core end processing	2x (0.25 1.5 mm²)		
• for AWG cables solid	2x (24 16)		
for 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 mm <sup>2</sup>		
finely stranded without core end processing	0.25 1.5 mm <sup>2</sup>		
AWG number as coded connectable conductor cross section	0.23 1.3 11111		
• solid	24 16		
• 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			
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











Declaration of Conformity

**Test Certificates** 

Marine / Shipping

other

UK CA 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=3UG4614-2BR20

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3UG4614-2BR20}$ 

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

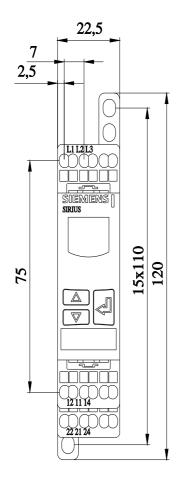
https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-2BR20

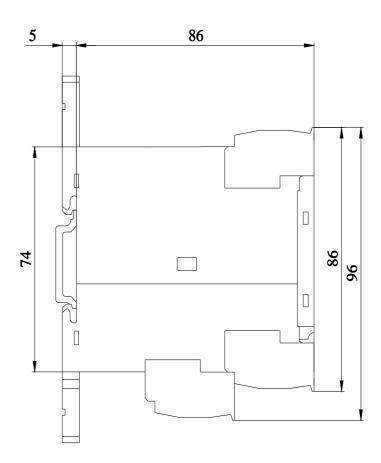
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

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





last modified:

3/22/2023