## **SIEMENS**

Data sheet 3UG4618-1CR20



Digital monitoring relay for 3-phase voltage with N-conductor Autom. phase sequence correction Phase failure 3 x 90 to 400 V 50 to 60 Hz AC Undervoltage and overvoltage 90-400 V Hysteresis 1-20 V OFF delay 0-20 s Asymmetry 0-20% 1 CO for phase correction 1 CO for line supply faults screw terminal

Figure similar

product brand name	SIRIUS			
product designation	Network monitoring relay with digital setting			
design of the product	5 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				
with degree of pollution 3 rated value	690 V			
degree of pollution	3			
type of voltage				
<ul><li>for monitoring</li></ul>	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			
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8			
Product Function				
product function				
<ul> <li>undervoltage detection</li> </ul>	Yes			
<ul> <li>overvoltage detection</li> </ul>	Yes			
<ul> <li>phase sequence recognition</li> </ul>	Yes			
phase failure detection	Yes			
asymmetry detection	Yes			
<ul> <li>overvoltage detection 3 phase</li> </ul>	Yes			
<ul> <li>undervoltage detection 3 phases</li> </ul>	Yes			
<ul> <li>voltage window recognition 3 phase</li> </ul>	Yes			
<ul> <li>adjustable open/closed-circuit current principle</li> </ul>	No			

• auto-RESET	Yes		
Control circuit/ Control			
control supply voltage at AC			
• at 50 Hz rated value	90 400 V		
• at 60 Hz rated value	90 400 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	90 400 V		
adjustable response delay time			
with lower or upper limit violation	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			
for auxiliary contacts	2		
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	2.4		
• at 250 V at 50/60 Hz	3 A		
at 400 V at 50/60 Hz  ampacity of the output relay at DC 13	3 A		
ampacity of the output relay at DC-13  • at 24 V	1A		
• 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	4 A		
relay			
Electromagnetic compatibility			
conducted interference			
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV		
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV		
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	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			
between input and output	Yes		
between the outputs	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	screw-type terminals		
type of connectable conductor cross-sections			
• solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)		
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)		
<ul> <li>for AWG cables solid</li> </ul>	2x (20 14)		
for AWG cables stranded	2x (20 14)		
connectable conductor cross-section			

• solid	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	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		
fastening method	snap-on mounting		
height	102 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		
<ul> <li>for grounded parts</li> </ul>			
— 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

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

https://press.siemens.com/global/en/pressrelease/siemens-winddown-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=3UG4618-1CR20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4618-1CR20

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

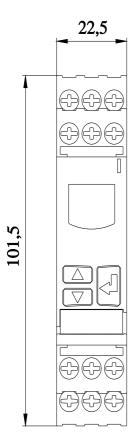
https://support.industry.siemens.com/cs/ww/en/ps/3UG4618-1CR20

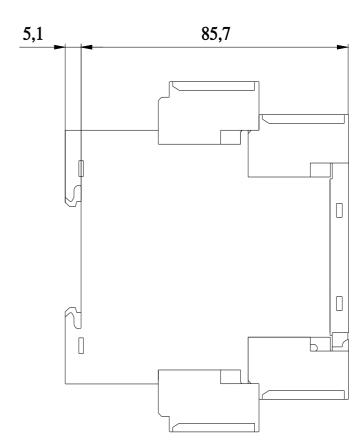
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UG4618-1CR20&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3UG4618-1CR20/manual





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