SIEMENS

Data sheet 3UG4511-1AQ20



!!! product phase-out !!! The preferred successor type is 3UG5511-1AR20 phase sequence monitoring 3x420-690 V 1 CO analog monitoring relay phase sequence monitoring 3 x 420...690 V 50...60 Hz AC 1 changeover contact screw terminal

Figure similar

product brand name	SIRIUS			
product designation	Line monitoring relay			
design of the product	1 function			
product type designation	3UG4			
General technical data				
product function	Phase monitoring relay			
display version LED	Yes			
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				
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			
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			
Substance Prohibitance (Date)	05/01/2012			
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 2,2',6,6'-Tetrabrom-4,4'-isopropylidendi - 79-94-7			
Product Function				
product function				
 undervoltage detection 	No			
 overvoltage detection 	No			
 phase sequence recognition 	Yes			
 phase failure detection 	No			
 asymmetry detection 	No			
 overvoltage detection 3 phase 	No			
 undervoltage detection 3 phases 	No			
 voltage window recognition 3 phase 	No			
 adjustable open/closed-circuit current principle 	No			
• auto-RESET	Yes			
Control circuit/ Control				
control supply voltage at AC				

• at 50 Hz rated value	420 690 V		
at 60 Hz rated value	420 690 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	420 690 V		
response time maximum	450 ms		
Auxiliary circuit			
number of NC contacts delayed switching	0		
number of NO contacts delayed switching	0		
number of CO contacts			
for auxiliary contacts	1		
•			
delayed switching	1 = 000.4/b		
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			
• 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	4 A		
relay			
Electromagnetic compatibility			
Electromagnetic compatibility conducted interference			
Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4	2 kV		
Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5	2 kV		
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			
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	2 kV 1 kV		
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 field-based interference according to IEC 61000-4-3	2 kV 1 kV		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2	2 kV 1 kV		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation	2 kV 1 kV		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes		
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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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes Screw-type terminals		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes Screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes Yes 10 V/m 10 kV contact discharge / 8 kV air discharge		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes 10 V/m 10 kV contact discharge / 8 kV air discharge		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes 10 V/m 10 kV contact discharge / 8 kV air discharge		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes 10 V/m		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes 10 V/m 11 V/m 12 V/m 13 V/m 14 V/m 15 V/m 16 kV contact discharge / 8 kV air discharge		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes 10 V/m 10 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes Yes 10 V/m 1		
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 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Galvanic isolation galvanic isolation • between input and output • between the outputs • between the voltage supply and other circuits Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid	2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge Yes Yes Yes Yes Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm²		
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mounting position	any		
fastening method	snap-on mounting		
height	83 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		
mbient 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		
pprovals Certificates			
General Product Approval		EMC	Declaration of Conformity



Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping

other



Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report





Confirmation

Railway

Vibration and Shock

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).

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=3UG4511-1AQ20

Cax online generator

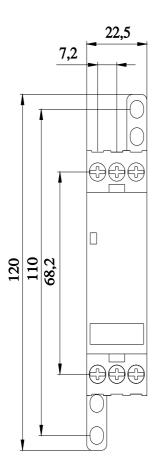
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4511-1AQ20

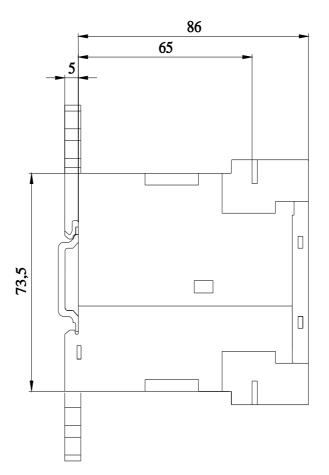
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4511-1AQ20&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1AQ20/manual





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