SIEMENS

Data sheet

3UG5511-1BR20



monitoring relay phase sequence monitoring 3x 160-690 V AC, 15-70 Hz 2 changeover contacts screw terminal

product brand name	SIRIUS	
product designation	Line monitoring relay	
design of the product	monitoring of phase sequence	
product type designation	3UG5	
General technical data		
product function	line monitoring	
display version LED	Yes	
insulation voltage for overvoltage category III according to IEC 60664		
 with degree of pollution 2 rated value 	690 V	
 with degree of pollution 3 rated value 	690 V	
degree of pollution	3	
type of voltage		
 for monitoring 	AC	
 of the operating voltage for actuation 	AC/DC	
 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	10 55 Hz: 0.35 mm	
switching behavior	monostable	
mechanical service life (operating cycles) typical	10 000	
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)	06/01/2023	
Product Function		
product function		
 undervoltage detection 	No	
 overvoltage detection 	No	
 phase sequence recognition 	Yes	
phase failure detection	No; available but limited, detection is problematic with high levels of regenerative power recovery	
 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	

suitability for use safety-related circuits	No
Control circuit/ Control	
control supply voltage at AC	
at 50 Hz rated value	200 690 V
at 50 Hz rated value	200 690 V
operating range factor control supply voltage rated value at	200 000 V
AC at 50 Hz	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
initial value	0.85
• full-scale value	1.1
Supply voltage	1.1
supply voltage frequency rated value	70 15 Hz
Measuring circuit	10 10 112
measurable voltage at AC	160 760 V
buffering time in the event of power failure minimum	20 ms
Short-circuit protection	20110
design of the fuse link for short-circuit protection of the NO	gL/gG: 6 A or MCB type C: 1 A
contacts of the relay outputs required	g=.g=. 3 / 0/ mob (pp 0. 1 //
Communication/ Protocol	
protocol is supported IO-Link protocol	No
type of voltage supply via input/output link master	No
Auxiliary circuit	
material of switching contacts	AgSnO2
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts	
 for auxiliary contacts 	2
 delayed switching 	0
operating frequency with 3RT2 contactor maximum	5 000 1/h
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA) $$
contact rating of auxiliary contacts according to UL	R300 / B300
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 110 V	0.2 A
• at 125 V	0.2 A
• at 230 V	0.1 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	6 A
relay Electromagnetic compatibility	
EMC emitted interference according to IEC 60047.1	
EMC emitted interference according to IEC 60947-1	class A
conducted interference	
• due to burst according to IEC 61000-4-4	2 kV (power ports), 2 kV (signal ports)
 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 	
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 (power ports), 2 kV (signal ports) 2 kV 1 kV
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 (power ports), 2 kV (signal ports) 2 kV 1 kV 10 V/m
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 (power ports), 2 kV (signal ports) 2 kV 1 kV
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 (power ports), 2 kV (signal ports) 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge
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 design of the electrical isolation	2 kV (power ports), 2 kV (signal ports) 2 kV 1 kV 10 V/m
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 (power ports), 2 kV (signal ports) 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge

between the outputs	Yes	
 between the voltage supply and other circuits 	Yes	
Connections/ Terminals		
product component removable terminal for main circuit	Yes	
product component removable terminal for auxiliary and	Yes	
control circuit		
type of electrical connection	screw-type terminals	
type of connectable conductor cross-sections		
• solid	1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²)	
finely stranded with core end processing	1x (0.5 4 mm ²), 2x (0.5 2.5 mm ²)	
for AWG cables solid connectable conductor cross-section	1x (20 12), 2x (20 14)	
solid	0.5 4 mm²	
 finely stranded with core end processing 	0.5 4 mm²	
AWG number as coded connectable conductor cross	0.0 + mm	
section		
• solid	20 12	
stranded	20 12	
tightening torque with screw-type terminals	0.6 0.8 N·m	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm DIN rail	
height	100 mm	
width	22.5 mm	
depth	90 mm	
required spacing		
with side-by-side mounting	0	
— forwards	0 mm	
— backwards	0 mm	
— upwards — downwards	0 mm	
— at the side	0 mm	
for grounded parts	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	
relative humidity during operation	70 %	
Certificates/ approvals		
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=3UG5511-1BR20		

Cax online generator

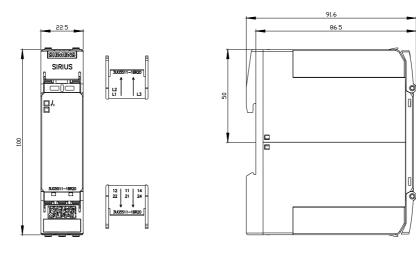
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5511-1BR20

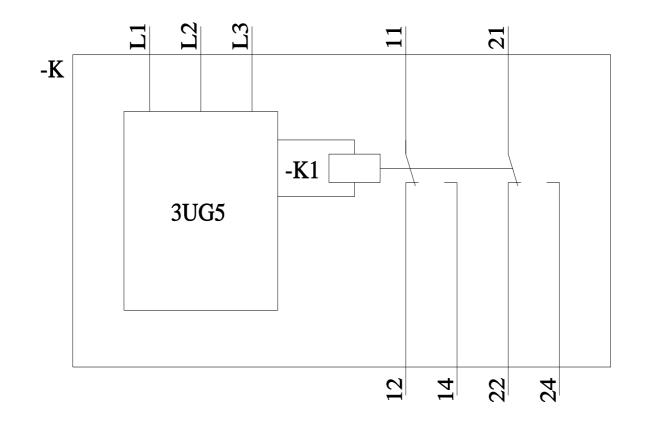
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3UG5511-1BR20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5511-1BR20&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG5511-1BR20/manual





last modified:

7/5/2023 🖸