SIEMENS

Data sheet 3UG4512-1BR20



Analog monitoring relay Phase failure and sequence 3 x 160...690 V 50...60 Hz AC 2 change-over contacts screw terminal Successor product for 3UG3513-1BL50 or 3UG3513-1PB50

Figure similar

product brand name	SIRIUS
product designation	Network monitoring relay with analog setting
design of the product	2 functions
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 acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance acc. 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 acc. to IEC 81346-2	K
relative repeat accuracy	1 %
Substance Prohibitance (Date)	28.05.2009 00:00:00
Product Function	
product function	
 undervoltage detection 	No
 overvoltage detection 	No
 phase sequence recognition 	Yes
 phase failure detection 	Yes
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	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	1
value at AC at 60 Hz	
• initial value	1
full-scale value	1
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
Outputs	
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	
due to burst acc. to IEC 61000-4-4	2 kV
 due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. 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
between the voltage supply and other circuits	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 mm2), 2x (0.5 2.5 mm2)
 finely stranded with core end processing 	1x (0.5 2.5 mm2), 2x (0.5 1.5 mm2)
 at AWG cables solid 	2x (20 14)
at AWG cables stranded	2x (20 14)
connectable conductor cross-section	
• solid	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 14
♥ SUIIU	LV 11

• 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		92 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	l 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	Test Certificates









Miscellaneous

Type Test Certificates/Test Report

Test Certificates Marine / Shipping other Railway

Special Test Certificate



DNV-GL DNV-GL Confirmation

Vibration and Shock

Further informatior

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=3UG4512-1BR20

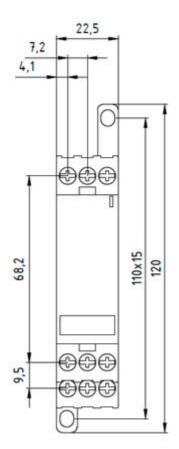
Cax online generator

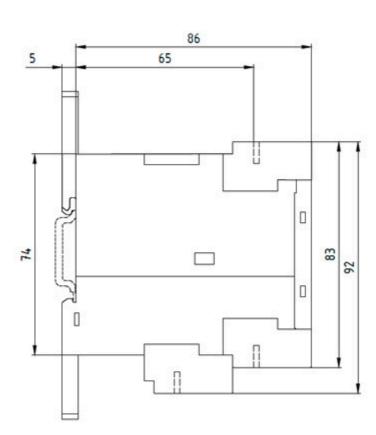
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4512-1BR20

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

https://support.industry.siemens.com/cs/ww/en/ps/3UG4512-1BR20

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





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