



Figure similar

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

product brand name
product designation
design of the product
product type designation

SIRIUS
Network monitoring relay with analog setting
2 functions
3UG4

General technical data

product function
display version LED
insulation voltage for overvoltage category III
according to IEC 60664
 • with degree of pollution 3 rated value
degree of pollution
type of voltage
 • for monitoring
 • of the control supply voltage
surge voltage resistance rated value
protection class IP
shock resistance according to IEC 60068-2-27
vibration resistance according to IEC 60068-2-6
mechanical service life (operating cycles) typical
electrical endurance (operating cycles) at AC-15 at
230 V typical
thermal current of the switching element with
contacts maximum
reference code according to IEC 81346-2
relative repeat accuracy
Substance Prohibitance (Date)

Phase monitoring relay
Yes

690 V
3

AC
AC
6 kV
IP20
sinusoidal half-wave 15g / 11 ms
1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
10 000 000
100 000

5 A

K
1 %
05/28/2009

Product Function

product function
 • undervoltage detection
 • overvoltage detection
 • phase sequence recognition
 • phase failure detection
 • asymmetry detection
 • overvoltage detection 3 phase
 • undervoltage detection 3 phases
 • voltage window recognition 3 phase
 • adjustable open/closed-circuit current principle
 • auto-RESET

No
No
Yes
Yes
No
No
No
No
No
No
Yes

Control circuit/ Control

control supply voltage at AC
 • at 50 Hz rated value

160 ... 690 V

<ul style="list-style-type: none"> • at 60 Hz rated value 	160 ... 690 V
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> • initial value 	1
<ul style="list-style-type: none"> • full-scale value 	1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> • initial value 	1
<ul style="list-style-type: none"> • full-scale value 	1
Measuring circuit	
measurable voltage at AC	160 ... 690 V
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	2
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at 250 V at 50/60 Hz 	3 A
<ul style="list-style-type: none"> • at 400 V at 50/60 Hz 	3 A
ampacity of the output relay at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 	2 kV
<ul style="list-style-type: none"> • due to conductor-earth surge according to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • 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 style="list-style-type: none"> • between input and output 	Yes
<ul style="list-style-type: none"> • between the outputs 	Yes
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • solid 	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> • at AWG cables solid 	2x (20 ... 14)
<ul style="list-style-type: none"> • at AWG cables stranded 	2x (20 ... 14)
connectable conductor cross-section	
<ul style="list-style-type: none"> • solid 	0.5 ... 4 mm ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.5 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
<ul style="list-style-type: none"> • 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 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	
 CCC	Confirmation	 UL	 EAC	 RCM	 EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping	other	
	Special Test Certificate	Type Test Certificates/Test Report	 	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=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,...)

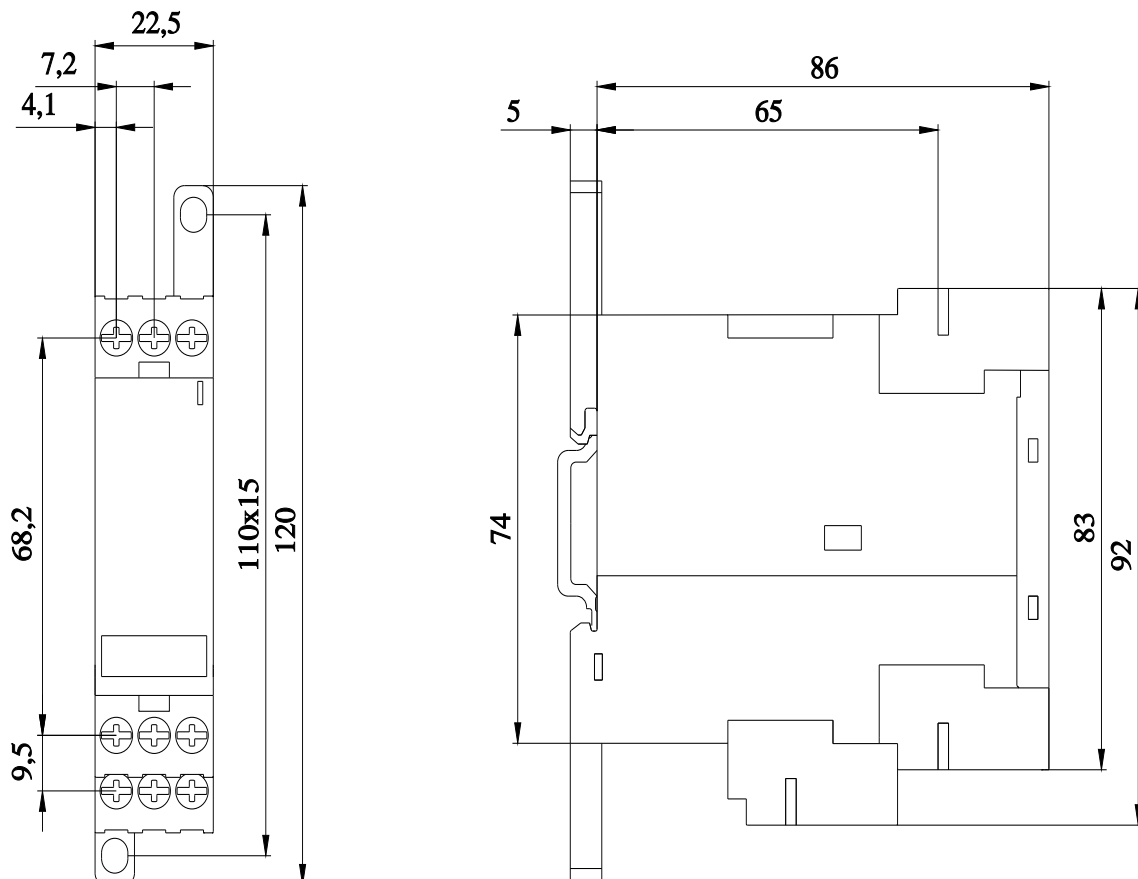
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4512-1BR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4512-1BR20&lang=en

Characteristic: Derating

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



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