SIEMENS

Data sheet 3UG4511-1AP20

Analog monitoring relay Phase sequence monitoring 3 x 320...500 V 50...60 Hz AC 1 change-over contact screw terminal Successor product for 3UG3511-1AQ50

Figure similar

Product brand name	SIRIUS
Product designation	Network monitoring relay with analog setting
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	
• 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 DIN EN 81346-2	K

Product Function

Product function	
• undervoltage detection	No
• Overvoltage detection	No
• phase sequence recognition	Yes
• Phase failure detection	Yes; available but limited, detection is problematic with high levels of regenerative power recovery
• Phase unbalance	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	320 ... 500 V
• at 60 Hz rated value	320 ... 500 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

Auxiliary circuit

Number of NC contacts	
• delayed switching	0
Number of NO contacts	
• delayed switching	0

Number of CO contacts	
• delayed switching	1
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
Operating 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-bound parasitic coupling 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 entrance and outlet	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	Yes

Connections/ Terminals

Product function	
• 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 conductors solid	2x (20 ... 14)
• at AWG conductors stranded	2x (20 ... 14)
Connectable conductor cross-section	

• solid	0.5 ... 4 mm²
• finely stranded with core end processing	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
Mounting type	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

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	UL		RCM	EG-Konf.	Miscellaneous

Test Certificates		Marine / Shipping		other	Railway
Special Test Certificate	Type Test Certificates/Test Report	LRS		Confirmation	Vibration and Shock

Further information

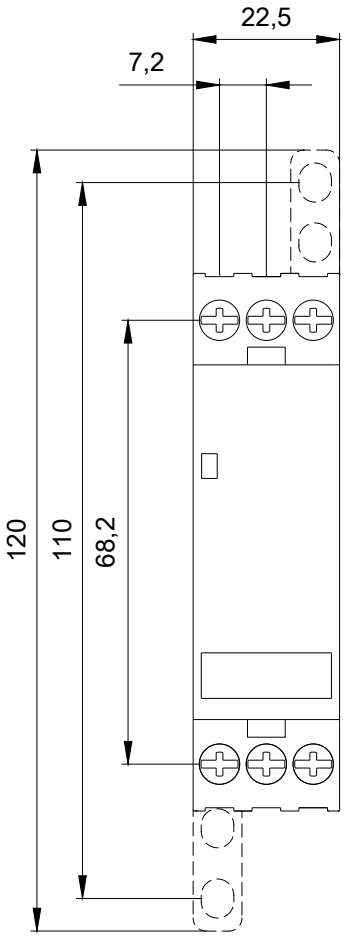
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

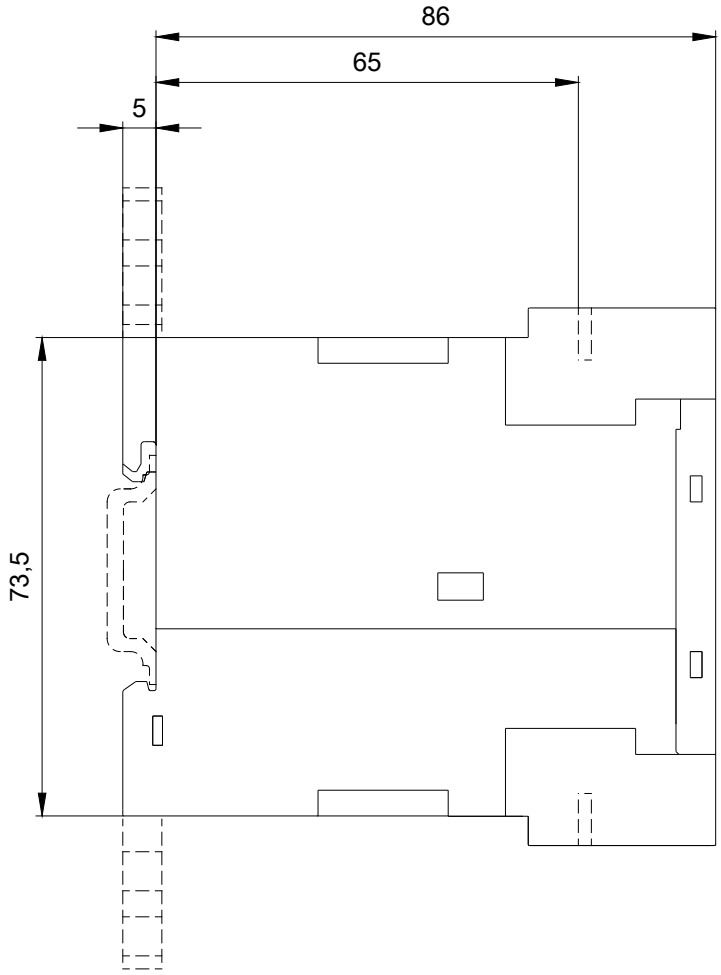
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4511-1AP20

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4511-1AP20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1AP20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4511-1AP20&lang=en





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