



Figure similar

Digital monitoring relay 3-phase supply voltage Phase sequence can be activated Phase failure 3 x 160 to 690 V 50 to 60 Hz AC Undervoltage and overvoltage 160-690 V Hysteresis 1-20 V 0-20 s each for Umin and Umax 1 CO for Umin 1 CO for Umax screw terminal Successor product for 3UG3041-1BP50

product brand name	SIRIUS	
product designation	Network monitoring relay with digital setting	
design of the product	5 functions	
product type designation	3UG4	
General technical data		
product function	Phase monitoring relay	
display version LED	No	
design of the display	LCD	
insulation voltage for overvoltage category III according to IEC 60664	690 V	
• with degree of pollution 3 rated value		
degree of pollution	3	
type of voltage	AC	
• for monitoring		
• 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)	01.05.2012	
Product Function		
product function	Yes	
• undervoltage detection		
• overvoltage detection		
• phase sequence recognition		
• phase failure detection		
• asymmetry detection		Yes; not adjustable, indirectly by monitoring the voltage limit values
• overvoltage detection 3 phase		
• undervoltage detection 3 phases		
• voltage window recognition 3 phase		
• adjustable open/closed-circuit current principle		
• auto-RESET		

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 value at AC at 60 Hz	
• initial value	1
• full-scale value	1
Measuring circuit	
measurable voltage at AC	690 ... 160 V
adjustable response delay time	
• with lower or upper limit violation	0.1 ... 20 s
accuracy of digital display	+/-1 digit
Precision	
relative metering precision	5 %
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
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 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• at AWG cables solid	2x (20 ... 14)
• at AWG cables stranded	2x (20 ... 14)
connectable conductor cross-section	
• 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	
<ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards backwards upwards downwards at the side for grounded parts <ul style="list-style-type: none"> forwards backwards upwards at the side downwards for live parts <ul style="list-style-type: none"> forwards backwards upwards downwards at the side 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> during storage 	-40 ... +85 °C
<ul style="list-style-type: none"> during transport 	-40 ... +85 °C

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CCC	 UL	 EAC	 RCM
		 EG-Konf.	Special Test Certificate

Test Certificates	Marine / Shipping	other	Railway
Type Test Certificates/Test Report	 LRS	 DNV GL	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?mfb=3UG4615-1CR20>
Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4615-1CR20>

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

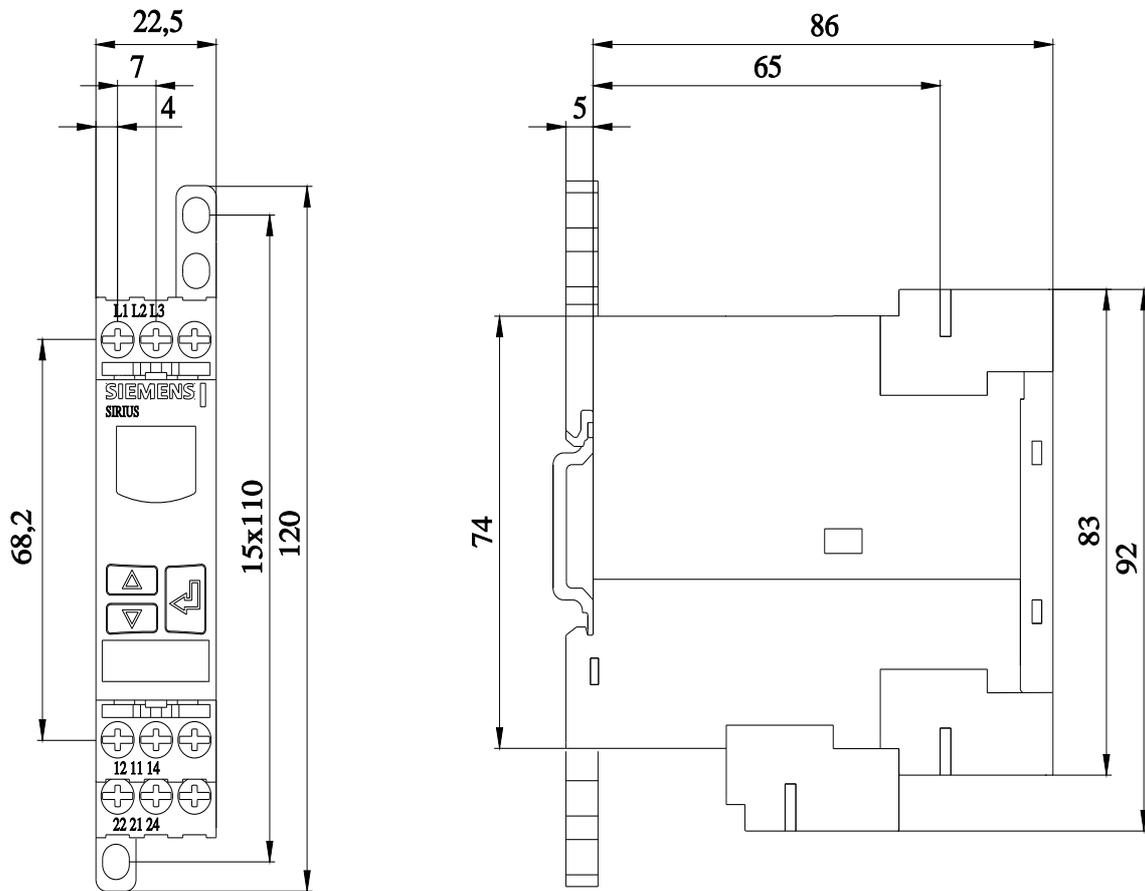
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4615-1CR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4615-1CR20&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4615-1CR20/manual>



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