SIEMENS

Data sheet 3UG4511-1BQ20



Analog monitoring relay Phase sequence monitoring 3 x 420...690 V 50...60 Hz AC 2 change-over contacts screw terminal

product type designation design of the product product type designation General technical data product function display version LED insulation voltage for overvoltage category III according to IEC 60864 • with degree of pollution 3 type of voltage • for monitoring • of the control supply voltage • for monitoring • of the control supply voltage • for monitoring AC surge voltage resistance rated value for Voltage • for surge voltage resistance rated value for Voltage • for monitoring AC • with degree of pollution • IP20 shock resistance according to IEC 60068-2-27 sinusoidal half-wave 15g / 11 ms vibration resistance according to IEC 60068-2-8 vibration resistance according to IEC 60068-2-8 for Hz 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical leloctrical endurance (switching cycles) typical leloctrical endurance (switching cycles) typical leloctrical endurance (switching element with contacts maximum reference code according to IEC 81346-2 Substance Prohibitance (Date) Product Function • undervoltage detection • phase sequence recognition • phase sequence recognition • phase sequence recognition • phase sequence recognition • overvoltage detection 3 phase • voltage window recognition 3 phase • voltage window recognition 3 phase • voltage window recognition 3 phase • dijustable open/closed-circuit current principle • auto-RESET ves Control supply voltage at AC • at 50 Hz rated value 420 690 V	product brand name	SIRIUS
product type designation General technical data product function display version LED resultation voltage for overvoltage category III according to IEC 80064 • with degree of pollution type of voltage • for monitoring • of the control supply voltage surge voltage resistance rated value for voltage for surge voltage resistance according to IEC 80068-2-27 sinusoidal half-wave 15g / 11 ms protection class IP IP20 shock resistance according to IEC 60068-2-6 shock resistance according to IEC 60068-2-6 rischarical service IIf (exitching cycles) typical electrical endurance (switching cycles) pyical electrical endurance (switching cycles) at AC-15 at 230 V typical thermal current of the switching element with contacts maximum reference code according to IEC 81346-2 Substance Prohibitance (Date) product Function product Function product function • undervoltage detection • phase sequence recognition • phase failure detection • overvoltage detection • phase failure detection • undervoltage detection • phase failure detection • undervoltage detection • overvoltage detection • phase failure detection • undervoltage detection • overvoltage detection 3 phase • undervoltage detection 3 phase • undervoltage detection 3 phase • undervoltage detection 3 phase • adjustable openiclosed-circuit current principle • auto-RESET Control circuit/ Control control supply voltage at AC	product designation	Network monitoring relay with analog setting
General technical data product function Phase monitoring relay display version LED insulation voltage for overvoltage category ill according to IEC 60064 • with degree of pollution 3 rated value 690 V degree of pollution 3 type of voltage • for monitoring • of the control supply voltage AC surge voltage resistance rated value 6 kV protection class IP shock resistance according to IEC 60068-2-27 sinusoidal half-wave 15g / 11 ms vibration resistance according to IEC 60068-2-6 1 6 Hz: 15 mm, 6 500 Hz: 2g mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical thermal current of the switching element with contacts maximum reference code according to IEC 81346-2 K Substance Prohibitance (Date) Product Function product function • undervoltage detection No • overvoltage detection No • phase sequence recognition Yes • phase failure detection No • overvoltage detection Sphase • voltage window recognition 3 phase • voltage window recognition 4 phase • voltage window recognition 4 phase	design of the product	1 function
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type of voltage • for monitoring • of the control supply voltage surge voltage resistance rated value 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 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 thermal current of the switching element with contacts maximum reference code according to IEC 81346-2 K Substance Prohibitance (Date) 05/01/2012 Product Function product function o undervoltage detection No o phase sequence recognition Yes o phase failure detection No asymmetry detection No o voervoltage detection 3 phase No o undervoltage detection 3 phase No o voltage window recognition 3 phase Account of the contact of	with degree of pollution 3 rated value	690 V
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Substance Prohibitance (Date) Product Function product function • undervoltage detection • overvoltage detection • phase sequence recognition • phase failure detection • phase failure detection • overvoltage detection • No • asymmetry detection • overvoltage detection 3 phase • undervoltage detection 3 phases • voltage window recognition 3 phase • voltage window recognition 3 phase • adjustable open/closed-circuit current principle • auto-RESET Control circuit/ Control control supply voltage at AC		5 A
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overvoltage detection 3 phase undervoltage detection 3 phases voltage window recognition 3 phase adjustable open/closed-circuit current principle auto-RESET Yes Control circuit/ Control control supply voltage at AC	 phase failure detection 	No
undervoltage detection 3 phases voltage window recognition 3 phase adjustable open/closed-circuit current principle auto-RESET Yes Control circuit/ Control control supply voltage at AC	 asymmetry detection 	No
voltage window recognition 3 phase adjustable open/closed-circuit current principle auto-RESET Yes Control circuit/ Control control supply voltage at AC	 overvoltage detection 3 phase 	No
adjustable open/closed-circuit current principle auto-RESET Yes Control circuit/ Control control supply voltage at AC	 undervoltage detection 3 phases 	No
auto-RESET Yes Control circuit/ Control control supply voltage at AC	 voltage window recognition 3 phase 	No
Control circuit/ Control control supply voltage at AC	 adjustable open/closed-circuit current principle 	No
control supply voltage at AC	• auto-RESET	Yes
	Control circuit/ Control	
• at 50 Hz rated value 420 690 V	control supply voltage at AC	
	• at 50 Hz rated value	420 690 V

40011	100 000 1/
at 60 Hz rated value	420 690 V
operating range factor control supply voltage rated	
value at AC at 50 Hz	4
• 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	690 420 V
Auxiliary circuit	030 420 V
-	
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 according to IEC 61000-4-4 	2 kV
 due to conductor-earth surge according to IEC 61000-4-5 	2 kV
 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	
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 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

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



Confirmation









Test Certificates	Marine / Shipping	other	Railway
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Type Test Certificates/Test Report

Special Test Certificate





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=3UG4511-1BQ20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4511-1BQ20

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

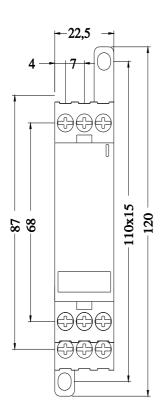
https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1BQ20

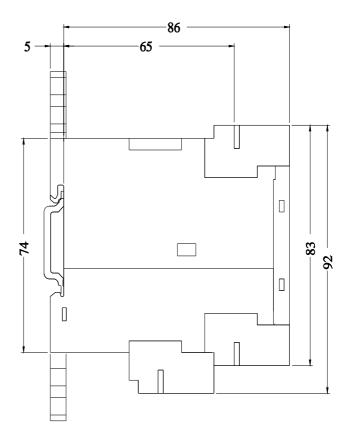
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4511-1BQ20&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1BQ20/manual





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