SIEMENS

3UG4815-1AA40 **Data sheet**



Digital monitoring relay 3-phase supply voltage for IO-Link 50...60 Hz AC 3 x 160 to 690 V Phase sequence, Phase failure Phase asymmetry Undervoltage and overvoltage Hysteresis 1-20 V Line stabilization delay Tripping delay time 1 change-over contact, screw terminal

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

SIRIUS

Network monitoring relay with digital setting

5 functions

General technical data

product function

display version LED

design of the display

insulation voltage for overvoltage category III according to IEC 60664

• with degree of pollution 2 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

reference code according to IEC 81346-2

relative repeat accuracy

Substance Prohibitance (Date)

3UG4

Phase monitoring relay

No

LCD

690 V

2

AC

DC

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 % 05/01/2012

Yes

Yes

Yes

Yes Yes

Yes

Yes

Yes

Yes

Yes

Yes

Product Function

undervoltage	detection

asymmetry detection

• overvoltage detection 3 phase

• voltage window recognition 3 phase

external reset

auto-RESET

control supply voltage at AC

contacts maximum

product function

undervoltage detection

 overvoltage detection • phase sequence recognition

• phase failure detection

• undervoltage detection 3 phases

• adjustable open/closed-circuit current principle

Control circuit/ Control

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at 50 Hz rated value	0 0 0		
at 50 Hz rated value at 60 Hz rated value	0 0 V 0 0 V		
control supply voltage at DC	0 0 V		
• rated value	24 24 V		
Measuring circuit			
measurable voltage at AC	160 690 V		
adjustable response delay time	100 000 V		
when starting	0 999.9 s		
with lower or upper limit violation	0 999.9 s		
accuracy of digital display	+/-1 digit		
Precision			
relative metering precision	5 %		
Communication/ Protocol			
protocol is supported IO-Link protocol	Yes		
IO-Link transfer rate	COM2 (38,4 kBaud)		
point-to-point cycle time between master and IO-Link device minimum	10 ms		
type of voltage supply via input/output link master	Yes		
data volume			
of the address range of the inputs with cyclical	4 byte		
transfer total			
 of the address range of the outputs with cyclical transfer total 	2 byte		
Auxiliary circuit			
number of NC contacts delayed switching	0		
number of NO contacts delayed switching	0		
number of CO contacts			
for auxiliary contacts	1		
 delayed switching 	1		
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		
ampacity of the semiconductor output in SIO mode	200 mA		
operational current at 17 V minimum	20 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 	2 kV		
61000-4-5	1 W		
 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 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	Solow type terminals		
solid	1x (0.5 4.0 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)		
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 at AWG cables solid 2x (20 ... 14) • at AWG cables stranded 2x (20 ... 14) connectable conductor cross-section 0.5 ... 4 mm² • finely stranded with core end processing 0.5 ... 2.5 mm² AWG number as coded connectable conductor cross section 20 ... 14 stranded 20 ... 14 0.8 ... 1.2 N·m tightening torque with screw-type terminals Installation/ mounting/ dimensions mounting position fastening method snap-on mounting height 102 mm width 22.5 mm 91 mm depth required spacing • with side-by-side mounting - forwards 0 mm 0 mm - backwards - upwards 0 mm 0 mm - downwards - 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** 2 000 m installation altitude at height above sea level maximum ambient temperature -25 ... +60 °C during operation during storage -40 ... +85 °C -40 ... +85 °C during transport Certificates/ approvals **General Product Approval EMC**

Confirmation



Manufacturer Declaration







Declaration of Conformity

Test Certificates

Marine / Shipping

other

UK CA



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=3UG4815-1AA40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4815-1AA40

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

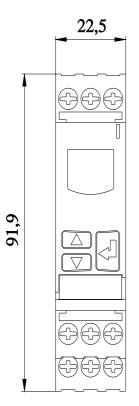
https://support.industry.siemens.com/cs/ww/en/ps/3UG4815-1AA40

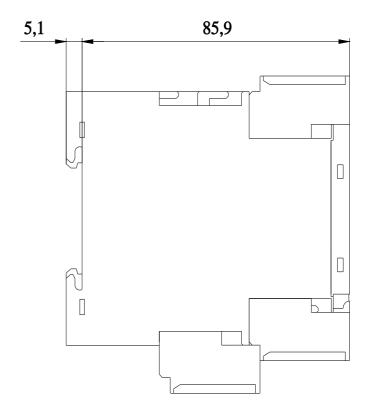
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

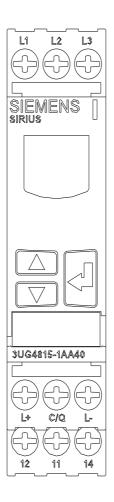
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4815-1AA40&lang=en

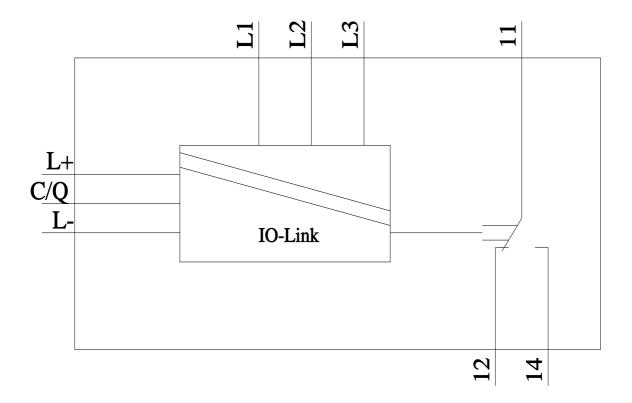
Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3UG4815-1AA40/manual









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