# SIEMENS

#### Data sheet

### 3UG4581-1AW31



insulation monitoring relay for ungrounded (IT) networks up to 400 V AC, 50-60 Hz measuring range 1-100 kohm supply voltage 24-240 V AC/DC 22.5 mm, 1 changeover contact screw terminal

product brand name	SIRIUS
product designation	Insulation monitoring relay with analog setting
product type designation	3UG4
General technical data	
product function	Insulation monitor
type of voltage	
for monitoring	AC
<ul> <li>of the operating voltage for actuation</li> </ul>	AC/DC
<ul> <li>of the control supply voltage</li> </ul>	AC/DC
surge voltage resistance rated value	6 000 V
protection class IP	IP20
thermal current of the switching element with contacts maximum	4 A
reference code according to IEC 81346-2	К
Substance Prohibitance (Date)	05/01/2012
Product Function	
product function	
error memory	Yes
<ul> <li>adjustable open/closed-circuit current principle</li> </ul>	No
manual RESET	Yes
Control circuit/ Control	
control supply voltage at AC	
<ul> <li>at 50 Hz rated value</li> </ul>	24 240 V
• at 60 Hz rated value	24 240 V
control supply voltage at DC rated value	24 240 V
operating range factor control supply voltage rated value at DC	
initial value	0.85
full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul> <li>initial value</li> </ul>	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul> <li>initial value</li> </ul>	0.85
• full-scale value	1.1
Measuring circuit	
measurable line frequency	50 60 Hz
measurable line frequency measurable voltage at AC	50 60 Hz 0 400 V

number of NC contacts for auxiliary contacts	0		
number of NC contacts delayed switching	0		
number of NO contacts for auxiliary contacts	0		
number of NO contacts delayed switching	0		
number of CO contacts			
delayed switching	1		
Main circuit			
operating frequency rated value	50 60 Hz		
Connections/ Terminals			
product component removable terminal for auxiliary and control circuit	No		
type of electrical connection	screw-type terminals		
type of connectable conductor cross-sections			
• solid	1x (0.5 4.0 mm²), 2x (0.5	2.5 mm <sup>2</sup> )	
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5		
<ul> <li>finely stranded without core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5		
• for AWG cables solid	1x (20 12), 2x (20 14)		
for AWG cables stranded	1x (18 14), 2x (18 16)		
connectable conductor cross-section	IX (10 14), 2X (10 10)		
solid	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 4 mm <sup>2</sup>		
	0.5 2.5 mm <sup>2</sup>		
finely stranded without core end processing  AWG number as coded connectable conductor cross	0.5 2.5 mm		
section	00 40		
• solid	20 12		
• stranded	18 14		
tightening torque with screw-type terminals	0.6 0.8 N·m		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	snap-on fastening on 35 mm [	DIN rail	
height	78 mm		
width	22.5 mm		
depth	100 mm		
required spacing			
<ul> <li>with side-by-side mounting</li> </ul>			
— forwards	0 mm		
— backwards	0 mm		
— upwards	0 mm		
— downwards	0 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— 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			
	-25 +60 °C		
ambient temperature during operation Certificates/ approvals	-25 +60 °C		



 
 Declaration of Conformity
 Marine / Shipping
 other

 Confirmation
 Confirmation

#### **Further information**

EG-Konf

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=3UG4581-1AW31

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4581-1AW31

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

https://support.industry.siemens.com/cs/ww/en/ps/3UG4581-1AW31

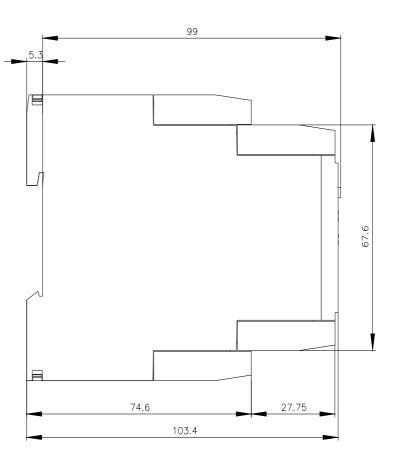
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

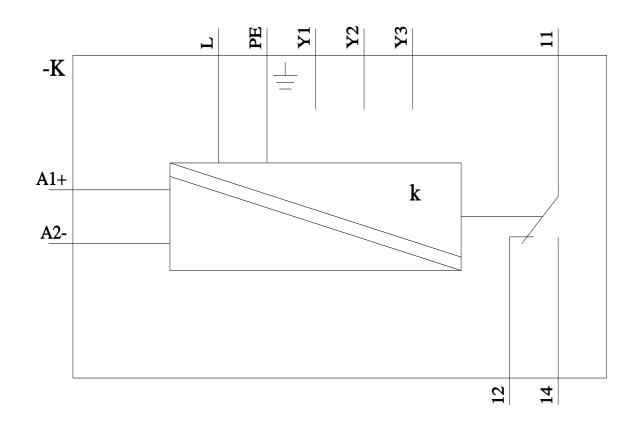
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UG4581-1AW31&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3UG4581-1AW31/manual

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3/31/2023 🖸

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