



Digital monitoring relay Asymmetry 0-20%, default off Phase sequence, default off Phase failure 3 x 160 to 690 V 50 to 60 Hz AC Undervoltage, default 320 V Hysteresis, Default: 5% ON, OFF delay: Def. 0.1 s 2 change-over contacts screw terminal

|   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
|---|---|--------------------------|-----|-------------------------|----|------------------------------|-----|---------------------------|-----|-----------------------|-----|---------------------------------|----|-----------------------------------|-----|--------------------------------------|----|--|-----|--------------|-----|
| <b>product brand name</b>   | SIRIUS  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>product designation</b>  | Network monitoring relay with digital setting   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>design of the product</b>  | 4 functions   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>product type designation</b>   | 3UG4  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>General technical data</b>   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>product function</b>   | Phase monitoring relay  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>display version LED</b>  | No  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>design of the display</b>  | LCD   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| insulation voltage for overvoltage category III according to IEC 60664                                  | 690 V   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <ul style="list-style-type: none"> <li>with degree of pollution 3 rated value</li> </ul>                |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>degree of pollution</b>  | 3   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>type of voltage</b>  | AC  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <ul style="list-style-type: none"> <li>for monitoring</li> <li>of the control supply voltage</li> </ul> |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>surge voltage resistance rated value</b>   | 6 kV  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>protection class IP</b>  | 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                                       | 100 000   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>thermal current of the switching element with contacts maximum</b>                                   | 5 A   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>reference code according to IEC 81346-2</b>  | K   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>relative repeat accuracy</b>   | 1 %   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>Substance Prohibitance (Date)</b>  | 05/01/2012  |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>Product Function</b>   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>product function</b>   | <table border="0"> <tr><td>• undervoltage detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection</td><td>No</td></tr> <tr><td>• phase sequence recognition</td><td>Yes</td></tr> <tr><td>• phase failure detection</td><td>Yes</td></tr> <tr><td>• asymmetry detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection 3 phase</td><td>No</td></tr> <tr><td>• undervoltage detection 3 phases</td><td>Yes</td></tr> <tr><td>• voltage window recognition 3 phase</td><td>No</td></tr> <tr><td>• adjustable open/closed-circuit current principle</td><td>Yes</td></tr> <tr><td>• auto-RESET</td><td>Yes</td></tr> </table> | • undervoltage detection | Yes | • overvoltage detection | No | • phase sequence recognition | Yes | • phase failure detection | Yes | • asymmetry detection | Yes | • overvoltage detection 3 phase | No | • undervoltage detection 3 phases | Yes | • voltage window recognition 3 phase | No | • adjustable open/closed-circuit current principle | Yes | • auto-RESET | Yes |
| • undervoltage detection  |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • overvoltage detection   |   | No                       |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • phase sequence recognition  |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • phase failure detection   |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • asymmetry detection   |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • overvoltage detection 3 phase   |   | No                       |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • undervoltage detection 3 phases   |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • voltage window recognition 3 phase  |   | No                       |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • adjustable open/closed-circuit current principle  |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • auto-RESET  |   | Yes                      |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • undervoltage detection  |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • overvoltage detection   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • phase sequence recognition  |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • phase failure detection   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • asymmetry detection   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • overvoltage detection 3 phase   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • undervoltage detection 3 phases   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • voltage window recognition 3 phase  |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • adjustable open/closed-circuit current principle  |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| • auto-RESET  |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |
| <b>Control circuit/ Control</b>   |   |                          |     |                         |    |                              |     |                           |     |                       |     |                                 |    |                                   |     |                                      |    |  |     |              |     |

|   |  |
|---|--|
| <b>control supply voltage at AC</b>   |  |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>  | 160 ... 690 V<br>160 ... 690 V   |
| <b>operating range factor control supply voltage rated value at AC at 50 Hz</b>   |  |
| <ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>   | 1<br>1   |
| <b>operating range factor control supply voltage rated value at AC at 60 Hz</b>   |  |
| <ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>   | 1<br>1   |
| <b>Measuring circuit</b>  |  |
| <b>measurable voltage at AC</b>   | 690 ... 160 V  |
| <b>adjustable response delay time</b>   |  |
| <ul style="list-style-type: none"> <li>when starting</li> <li>with lower or upper limit violation</li> </ul>  | 0.1 ... 20 s<br>0.1 ... 20 s   |
| <b>accuracy of digital display</b>  | +/-1 digit   |
| <b>Precision</b>  |  |
| <b>relative metering precision</b>  | 5 %  |
| <b>Auxiliary circuit</b>  |  |
| number of NC contacts delayed switching   | 0  |
| number of NO contacts delayed switching   | 0  |
| number of CO contacts delayed switching   | 2  |
| <b>operating frequency with 3RT2 contactor maximum</b>  | 5 000 1/h  |
| <b>Main circuit</b>   |  |
| <b>number of poles for main current circuit</b>   | 3  |
| <b>ampacity of the output relay at AC-15</b>  |  |
| <ul style="list-style-type: none"> <li>at 250 V at 50/60 Hz</li> <li>at 400 V at 50/60 Hz</li> </ul>  | 3 A<br>3 A   |
| <b>ampacity of the output relay at DC-13</b>  |  |
| <ul style="list-style-type: none"> <li>at 24 V</li> <li>at 125 V</li> <li>at 250 V</li> </ul>   | 1 A<br>0.2 A<br>0.1 A  |
| <b>operational current at 17 V minimum</b>  | 5 mA   |
| <b>continuous current of the DIAZED fuse link of the output relay</b>   | 4 A  |
| <b>Electromagnetic compatibility</b>  |  |
| <b>conducted interference</b>   |  |
| <ul style="list-style-type: none"> <li>due to burst according to IEC 61000-4-4</li> <li>due to conductor-earth surge according to IEC 61000-4-5</li> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul> | 2 kV<br>2 kV<br>1 kV   |
| <b>field-based interference according to IEC 61000-4-3</b>  | 10 V/m   |
| <b>electrostatic discharge according to IEC 61000-4-2</b>   | 6 kV contact discharge / 8 kV air discharge  |
| <b>Galvanic isolation</b>   |  |
| <b>galvanic isolation</b>   |  |
| <ul style="list-style-type: none"> <li>between input and output</li> <li>between the outputs</li> <li>between the voltage supply and other circuits</li> </ul>  | Yes<br>Yes<br>Yes  |
| <b>Connections/ Terminals</b>   |  |
| <b>product component removable terminal for auxiliary and control circuit</b>   | Yes  |
| <b>type of electrical connection</b>  | screw-type terminals   |
| <b>type of connectable conductor cross-sections</b>   |  |
| <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> <li>at AWG cables solid</li> <li>at AWG cables stranded</li> </ul>  | 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )<br>2x (20 ... 14)<br>2x (20 ... 14) |
| <b>connectable conductor cross-section</b>  |  |
| <ul style="list-style-type: none"> <li>solid</li> </ul>   | 0.5 ... 4 mm <sup>2</sup>  |

|  |                             |
|--|-----------------------------|
| <ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul> | 0.5 ... 2.5 mm <sup>2</sup> |
| <b>AWG number as coded connectable conductor cross section</b>                             |                             |
| <ul style="list-style-type: none"> <li>solid</li> </ul>                                    | 20 ... 14                   |
| <ul style="list-style-type: none"> <li>stranded</li> </ul>                                 | 20 ... 14                   |
| tightening torque with screw-type terminals  | 0.8 ... 1.2 N·m             |

### Installation/ mounting/ dimensions

|  |  |
|--|--|
| <b>mounting position</b>   | any  |
| <b>fastening method</b>  | snap-on mounting   |
| <b>height</b>  | 92 mm  |
| <b>width</b>   | 22.5 mm  |
| <b>depth</b>   | 91 mm  |
| <b>required spacing</b>  |  |
| <ul style="list-style-type: none"> <li>with side-by-side mounting <ul style="list-style-type: none"> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>for grounded parts <ul style="list-style-type: none"> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li> <li>for live parts <ul style="list-style-type: none"> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> </ul> | 0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br><br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br><br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm |

### Ambient conditions

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

### Certificates/ approvals

|                          |     |                           |                   |
|--------------------------|-----|---------------------------|-------------------|
| General Product Approval | EMC | Declaration of Conformity | Marine / Shipping |
|--------------------------|-----|---------------------------|-------------------|

[Confirmation](#)



other

[Confirmation](#)

### 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=3UG4614-1BR28-0AA3>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4614-1BR28-0AA3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-1BR28-0AA3>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4614-1BR28-0AA3&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4614-1BR28-0AA3&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-1BR28-0AA3/manual>

last modified:

12/18/2020 