



Digital monitoring relay 3-phase supply voltage Autom. phase sequence correction Phase failure 3 x 160 to 690 V 50 to 60 Hz AC Undervoltage and overvoltage 160-690 V Hysteresis 1-20 V OFF delay 0-20 s Asymmetry 0-20% 1 CO for phase correction 1 CO for line supply faults spring-type connection system

|                                 |   |
|---------------------------------|---|
| <b>product brand name</b>       | SIRIUS  |
| <b>product designation</b>      | Network monitoring relay with digital setting |
| <b>design of the product</b>    | 5 functions                                   |
| <b>product type designation</b> | 3UG4  |

### General technical data

|  |                                     |
|--|-------------------------------------|
| <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 |                                     |
| • with degree of pollution 3 rated value                               | 690 V                               |
| <b>degree of pollution</b>   | 3                                   |
| <b>type of voltage</b>   |                                     |
| • for monitoring   | AC                                  |
| • of the control supply voltage  | AC                                  |
| <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                          |

### Product Function

|  |     |
|--|-----|
| <b>product function</b>                            |     |
| • undervoltage detection                           | Yes |
| • overvoltage detection                            | Yes |
| • phase sequence recognition                       | Yes |
| • phase failure detection                          | Yes |
| • asymmetry detection                              | Yes |
| • overvoltage detection 3 phase                    | Yes |
| • undervoltage detection 3 phases                  | Yes |
| • voltage window recognition 3 phase               | Yes |
| • adjustable open/closed-circuit current principle | No  |
| • auto-RESET                                       | Yes |

### Control circuit/ Control

|   |   |
|---|---|
| <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>with lower or upper limit violation</li> </ul>   | 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>  | spring-loaded 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>finely stranded without core end processing</li> <li>at AWG cables solid</li> <li>at AWG cables stranded</li> </ul>     | 2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2 x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (24 ... 16)<br>2x (24 ... 16) |
| <b>connectable conductor cross-section</b>  |   |
| <ul style="list-style-type: none"> <li>solid</li> </ul>   | 0.25 ... 1.5 mm <sup>2</sup>  |

|   |                              |
|---|------------------------------|
| <ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>    | 0.25 ... 1.5 mm <sup>2</sup> |
| <ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul> | 0.25 ... 1.5 mm <sup>2</sup> |
| <b>AWG number as coded connectable conductor cross section</b>                                |                              |
| <ul style="list-style-type: none"> <li>solid</li> </ul>                                       | 24 ... 16                    |
| <ul style="list-style-type: none"> <li>stranded</li> </ul>                                    | 24 ... 16                    |

| Installation/ mounting/ dimensions   |  |
|--|--|
| <b>mounting position</b>   | any  |
| <b>fastening method</b>  | snap-on mounting   |
| <b>height</b>  | 94 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 |  |

[Confirmation](#)



| Test Certificates  | Marine / Shipping | other | Railway   |
|--|-------------------|-------|---|
| <a href="#">Special Test Certificate</a><br><a href="#">Type Test Certificates/Test Report</a> |                   |       | <a href="#">Confirmation</a><br><a href="#">Vibration and Shock</a> |

| Further information  |
|--|
| <b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a><br><b>Industry Mall (Online ordering system)</b><br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4617-2CR20">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4617-2CR20</a><br><b>Cax online generator</b> |

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4617-2CR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4617-2CR20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4617-2CR20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4617-2CR20&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4617-2CR20/manual>

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