



Analog monitoring relay Phase sequence monitoring 3 x 160...260 V  
50...60 Hz AC 2 change-over contacts screw terminal Successor product  
for 3UG3511-1BQ50

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| <b>product brand name</b>  | SIRIUS                                       |
| <b>product designation</b>   | Network monitoring relay with analog setting |
| <b>design of the product</b>   | 1 function                                   |
| <b>product type designation</b>  | 3UG4   |
| <b>General technical data</b>  |  |
| <b>product function</b>  | Phase monitoring relay                       |
| <b>display version LED</b>   | Yes  |
| 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>Substance Prohibitance (Date)</b>                                   | 05/01/2012                                   |
| <b>Product Function</b>  |  |
| <b>product function</b>  |  |
| • undervoltage detection   | No   |
| • overvoltage detection  | No   |
| • phase sequence recognition   | Yes  |
| • phase failure detection  | No   |
| • asymmetry detection  | No   |
| • overvoltage detection 3 phase  | No   |
| • undervoltage detection 3 phases                                      | No   |
| • voltage window recognition 3 phase                                   | No   |
| • adjustable open/closed-circuit current principle                     | No   |
| • auto-RESET   | Yes  |
| <b>Control circuit/ Control</b>  |  |
| <b>control supply voltage at AC</b>                                    |  |
| • at 50 Hz rated value   | 160 ... 260 V                                |

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|---|--|
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>  | 160 ... 260 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> </ul>   | 1  |
| <ul style="list-style-type: none"> <li>• full-scale value</li> </ul>  | 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> </ul>   | 1  |
| <ul style="list-style-type: none"> <li>• full-scale value</li> </ul>  | 1  |
| <b>Measuring circuit</b>  |  |
| <b>measurable voltage at AC</b>   | 260 ... 160 V  |
| <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> </ul>  | 3 A  |
| <ul style="list-style-type: none"> <li>• at 400 V at 50/60 Hz</li> </ul>  | 3 A  |
| <b>ampacity of the output relay at DC-13</b>  |  |
| <ul style="list-style-type: none"> <li>• at 24 V</li> </ul>   | 1 A  |
| <ul style="list-style-type: none"> <li>• at 125 V</li> </ul>  | 0.2 A  |
| <ul style="list-style-type: none"> <li>• at 250 V</li> </ul>  | 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> </ul>                     | 2 kV   |
| <ul style="list-style-type: none"> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> </ul>     | 2 kV   |
| <ul style="list-style-type: none"> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul> | 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> </ul>                                    | Yes  |
| <ul style="list-style-type: none"> <li>• between the outputs</li> </ul>   | Yes  |
| <ul style="list-style-type: none"> <li>• between the voltage supply and other circuits</li> </ul>               | 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> </ul>   | 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )   |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>                    | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| <ul style="list-style-type: none"> <li>• at AWG cables solid</li> </ul>   | 2x (20 ... 14)   |
| <ul style="list-style-type: none"> <li>• at AWG cables stranded</li> </ul>                                      | 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  |
| <b>Installation/ mounting/ dimensions</b>   |  |
| <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 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— at the side 0 mm</li> <li>— downwards 0 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> </ul> |                  |

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

|                                 |            |                                  |
|---------------------------------|------------|----------------------------------|
| <b>Certificates/ approvals</b>  |            |                                  |
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> |

[Confirmation](#)



|                          |                          |              |                |
|--------------------------|--------------------------|--------------|----------------|
| <b>Test Certificates</b> | <b>Marine / Shipping</b> | <b>other</b> | <b>Railway</b> |
|--------------------------|--------------------------|--------------|----------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[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=3UG4511-1BN20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4511-1BN20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1BN20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4511-1BN20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4511-1BN20&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4511-1BN20/manual>

last modified:

12/21/2020

