



ANALOG MONITORING RELAY PHASE SEQUENCE  
MONITORING 3X 360 TO 520V AC 50 TO 60 HZ 2  
CHANGEOVER CONTACTS SCREW TERMINAL  
REPLACEMENT PRODUCT FOR 3UG3511-1BQ50



|  |   |                        |
|--|---|------------------------|
| Product function                                   |   | Phase monitoring relay |
| Measuring circuit:                                 |   |                        |
| Type of voltage for monitoring                     |   | AC                     |
| Number of poles for main current circuit           |   | 3                      |
| Measurable voltage at AC                           | V | 320 ... 500            |
| General technical data:                            |   |                        |
| Display version LED                                |   | Yes                    |
| Product function                                   |   |                        |
| • undervoltage detection                           |   | No                     |
| • Overvoltage detection                            |   | No                     |
| • phase sequence recognition                       |   | Yes                    |
| • Phase failure detection                          |   | No                     |
| • Phase unbalance                                  |   | No                     |
| • Overvoltage detection 3 phase                    |   | No                     |
| • undervoltage detection 3 phases                  |   | No                     |
| • Voltage window recognition 3 phase               |   | No                     |
| • Auto-reset                                       |   | Yes                    |
| • Adjustable open/closed-circuit current principle |   | No                     |

|   |                |   |
|---|----------------|---|
| Startup time after the control supply voltage has been applied  | ms             | 200   |
| Response time maximum   | ms             | 450   |
| Type of voltage of the control supply voltage   |                | AC  |
| Control supply voltage <ul style="list-style-type: none"> <li>at AC <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul> </li> </ul>            | V<br>V         | 320 ... 500<br>320 ... 500                  |
| Operating range factor control supply voltage rated value <ul style="list-style-type: none"> <li>at AC <ul style="list-style-type: none"> <li>at 50 Hz</li> <li>at 60 Hz</li> </ul> </li> </ul> |                | 1 ... 1<br>1 ... 1                          |
| Surge voltage resistance rated value  | kV             | 6   |
| Active power consumption  | W              | 2   |
| Protection class IP   |                | IP20  |
| Electromagnetic compatibility   |                | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4 |
| Vibration resistance acc. to IEC 60068-2-6  |                | 1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g         |
| Shock resistance acc. to IEC 60068-2-27   |                | sinusoidal half-wave 15g / 11 ms            |
| Installation altitude at height above sea level maximum   | m              | 2 000                                       |
| Conducted interference due to burst acc. to IEC 61000-4-4   |                | 2 kV  |
| Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5   |                | 2 kV  |
| Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5   |                | 1 kV  |
| Electrostatic discharge acc. to IEC 61000-4-2   |                | 6 kV contact discharge / 8 kV air discharge |
| Field-bound parasitic coupling acc. to IEC 61000-4-3  |                | 10 V/m                                      |
| Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value   | V              | 690   |
| Degree of pollution   |                | 3   |
| Ambient temperature <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>  | °C<br>°C<br>°C | -25 ... +60<br>-40 ... +85<br>-40 ... +85   |
| Galvanic isolation <ul style="list-style-type: none"> <li>between entrance and outlet</li> <li>between the outputs</li> <li>between the voltage supply and other circuits</li> </ul>            |                | Yes<br>Yes<br>Yes                           |
| Mechanical data:  |                |   |
| Width   | mm             | 22.5  |
| Height  | mm             | 92  |






|  |     |  |
|--|-----|--|
| <b>Depth</b>   | mm  | 91   |
| <b>Mounting position</b>   |     | any  |
| Required spacing for grounded parts  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| Required spacing with side-by-side mounting                                  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| Required spacing for live parts  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| <b>Mounting type</b>   |     | snap-on mounting   |
| <b>Product function 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>                          |     |  |
| • solid  |     | 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )   |
| • finely stranded  |     | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| — with core end processing   |     |  |
| • at AWG conductors  |     |  |
| — solid  |     | 2x (20 ... 14)   |
| — stranded   |     | 2x (20 ... 14)   |
| Tightening torque with screw-type terminals                                  | N·m | 0.8 ... 1.2  |


#### Outputs:

|  |   |   |
|--|---|---|
| <b>Number of NO contacts delayed switching</b> |   | 0 |
| <b>Number of NC contacts delayed switching</b> |   | 0 |
| <b>Number of CO contacts delayed switching</b> |   | 2 |
| Ampacity of the output relay                   |   |   |
| • at AC-15                                     |   |   |
| — at 250 V at 50/60 Hz                         | A | 3 |
| — at 400 V at 50/60 Hz                         | A | 3 |
| • at DC-13                                     |   |   |
| — at 24 V                                      | A | 1 |

|   |     |            |
|---|-----|------------|
| — at 125 V  | A   | 0.2        |
| — at 250 V  | A   | 0.1        |
| Thermal current of the switching element with contacts maximum    | A   | 5          |
| Operating current at 17 V minimum                                 | mA  | 5          |
| Continuous current of the DIAZED fuse link of the output relay    | A   | 4          |
| Mechanical service life (switching cycles) typical                |     | 10 000 000 |
| Electrical endurance (switching cycles) at AC-15 at 230 V typical |     | 100 000    |
| Operating frequency with 3RT2 contactor maximum                   | 1/h | 5 000      |

#### Certificates/ approvals:

| General Product Approval   |  | EMC   | Declaration of Conformity   | Test Certificates   |   |
|--|--|---|---|---|---|
| <br>CCC | <br>EAC | <br>UL | <br>C-TICK | <br>EG-Konf. | <a href="#">spezielle Prüfbescheinigungen</a><br><u>n</u> |

| Test<br>Certificates                              | Shipping Approval  |   |  | other                         | Railway                             |
|---|--|---|--|-------------------------------|-------------------------------------|
| <a href="#">Typprüfbescheinigung/Werkszeugnis</a> | <br>DNV | <br>GL | <br>LRS | <a href="#">Bestätigungen</a> | <a href="#">Schwingen/Schockenn</a> |

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

##### Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

##### Cax online generator

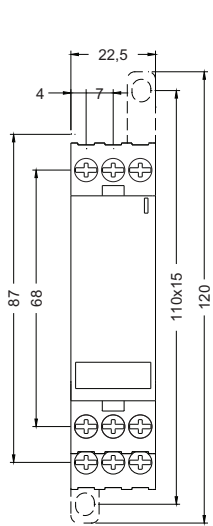
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG45111BP20>

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

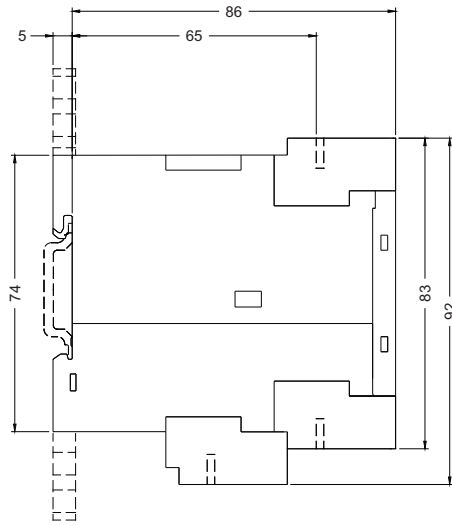
<https://support.industry.siemens.com/cs/ww/en/ps/3UG45111BP20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG45111BP20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG45111BP20&lang=en)



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