



DIGITAL MONITORING RELAY COS-PHI A. CURRENT MONITORING FROM 90 TO 690V AC OVERSHOOT AND UNDERSHOOT INTERNAL POWER SUPPLY AC 50 TO 60 HZ SPIKE DELAY 0.1 TO 20S HYSTERESIS W. (I) 0.1 TO 2A 2 CHANGEOVER CONTACTS W. OR W/O ERROR LOG SCREW TERMINAL REPLACEMENT PRODUCT F. 3UG3014

|   |    |                               |
|---|----|-------------------------------|
| <b>Product function</b>   |    | Active power monitoring relay |
| <b>Measuring circuit:</b>   |    |                               |
| <b>Number of poles for main current circuit</b>                   |    | 2                             |
| <b>Phase number</b>   |    | 1                             |
| <b>Adaptable response value phase displacement angle</b>          | °  | 0.1 ... 0.99                  |
| <b>Type of current for monitoring</b>                             |    | AC                            |
| <b>Measurable current</b>   | A  | 0.2 ... 10                    |
| <b>Adjustable pick-up value current</b>                           |    |                               |
| • 1   | A  | 0.2 ... 10                    |
| • 2   | A  | 0.2 ... 10                    |
| <b>Adjustable response delay time</b>                             |    |                               |
| • when starting   | s  | 0 ... 99                      |
| • with lower or upper limit violation                             | s  | 0.1 ... 20                    |
| <b>Adjustable switching hysteresis for measured current value</b> | mA | 100 ... 2 000                 |
| <b>Buffering time in the event of power failure minimum</b>       | ms | 10                            |
| <b>Operating voltage rated value</b>                              | V  | 90 ... 690                    |
| <b>Relative metering precision</b>                                | %  | 10                            |
| <b>Accuracy of digital display</b>                                |    | +/-1 digit                    |

|   |    |   |
|---|----|---|
| Relative repeat accuracy  | %  | 1   |
| <b>General technical data:</b>  |    |   |
| Design of the display   |    | LCD   |
| Product function  |    |   |
| • Overcurrent detection 1 phase   |    | Yes   |
| • undercurrent detection 1 phase  |    | Yes   |
| • External reset  |    | Yes   |
| • Adjustable open/closed-circuit current principle  |    | Yes   |
| Starting time after the control supply voltage has been applied   | ms | 1 000                                       |
| Response time maximum   | s  | 0.3   |
| Type of voltage of the control supply voltage   |    | AC  |
| Control supply voltage  |    |   |
| • at AC   |    |   |
| — at 50 Hz rated value  | V  | 90 ... 690                                  |
| — at 60 Hz rated value  | V  | 90 ... 690                                  |
| Operating range factor control supply voltage rated value   |    |   |
| • at AC   |    |   |
| — at 50 Hz  |    | 1 ... 1                                     |
| — at 60 Hz  |    | 1 ... 1                                     |
| Surge voltage resistance rated value  | kV | 6   |
| Consumed active power   | 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   |    |   |
| • during operation  | °C | -25 ... +60                                 |
| • during storage  | °C | -40 ... +85                                 |

|  |     |             |
|--|-----|-------------|
| • during transport   | °C  | -40 ... +85 |
| <b>Galvanic isolation</b>  |     |             |
| • between entrance and outlet  |     | Yes         |
| • between the outputs  |     | Yes         |
| • between the voltage supply and other circuits                          |     | Yes         |
| <b>Mechanical service life (switching cycles) typical</b>                |     | 10 000 000  |
| <b>Electrical endurance (switching cycles) at AC-15 at 230 V typical</b> |     | 100 000     |
| <b>Operating frequency with 3RT2 contactor maximum</b>                   | 1/h | 5 000       |

| Mechanical data:   |    |  |
|--|----|--|
| <b>Width</b>   | mm | 22.5   |
| <b>Height</b>  | mm | 102  |
| <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  |    |  |
| — with core end processing   |    | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| • at AWG conductors  |    |  |
| — solid  |    | 2x (20 ... 14)   |

|   |     |                |
|---|-----|----------------|
| — stranded                                  |     | 2x (20 ... 14) |
| Tightening torque with screw-type terminals | N·m | 1.2 ... 0.8    |

**Outputs:**

|  |    |     |
|--|----|-----|
| Number of NO contacts delayed switching                        |    | 0   |
| Number of NC contacts delayed switching                        |    | 0   |
| Number of CO contacts delayed switching                        |    | 2   |
| <b>Ampacity of the output relay</b>                            |    |     |
| • 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 |
| Operating current at 17 V minimum                              | mA | 5   |
| Continuous current of the DIAZED fuse link of the output relay | A  | 4   |
| Thermal current of the switching element with contacts maximum | A  | 5   |

**Certificates/ approvals:**

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



[Special Test Certificate](#)

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

[Type Test Certificates/Test Report](#)



LRS

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**Further information**

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

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

**Industry Mall (Online ordering system)**

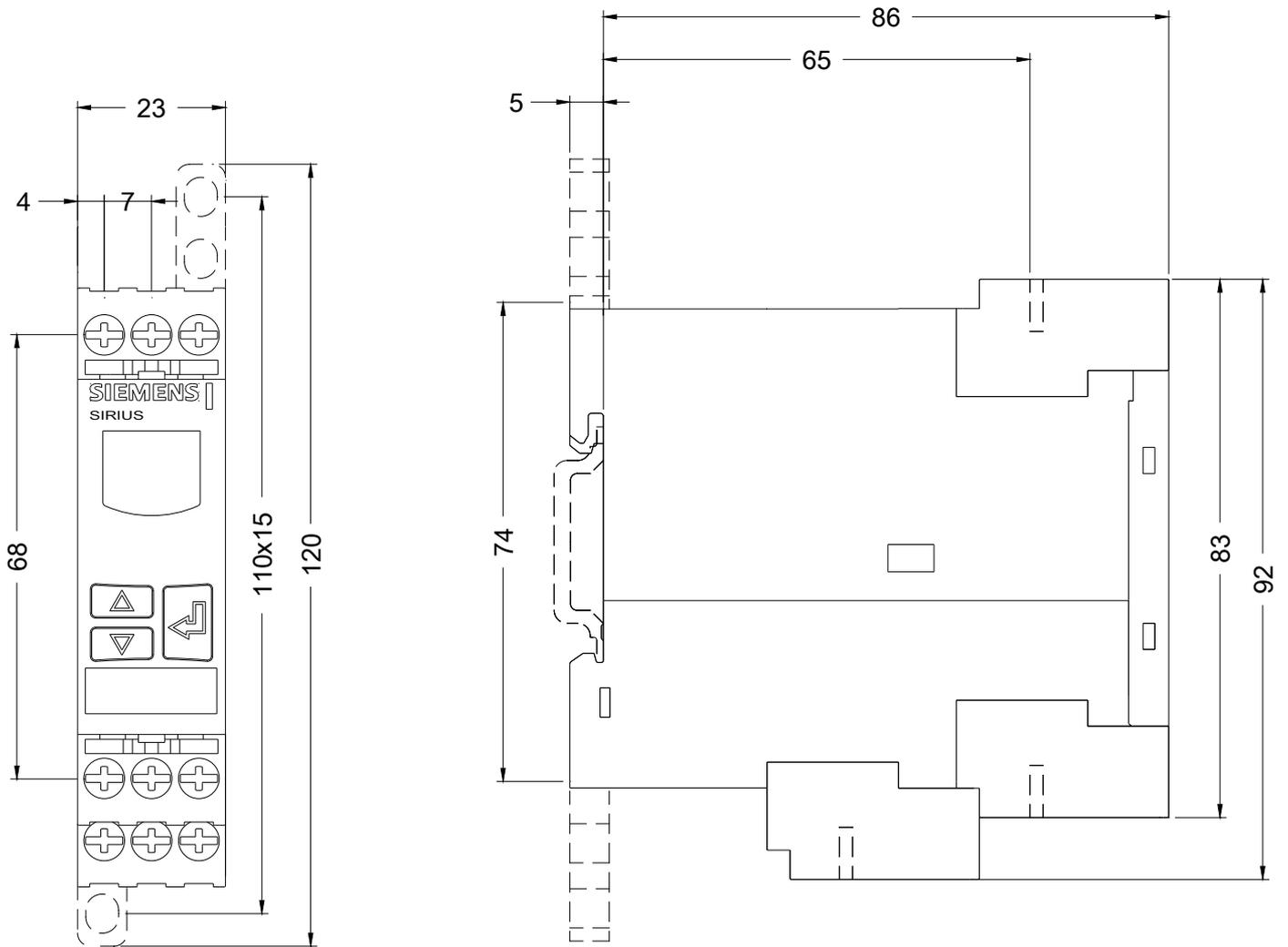
<http://www.siemens.com/industrymall>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG4641-1CS20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4641-1CS20>



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