

# 7SG15 MicroTAPP

Automatic Voltage Control

## Document Release History

This document is issue 2010/02. The list of revisions up to and including this issue is:

Pre release

2010/02	Document reformat due to rebrand

## Software Revision History

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## 1 Introduction

Voltage control systems are continually operative when in service. Any deviations in accuracy and control will directly affect the customers connected to the controlled power system. The MicroTAPP relay is a maintenance free relay, with no user serviceable parts.

Minimal checks by skilled personnel trained in relay operation and capable of observing all the necessary safety precautions and regulations appropriate to this equipment can be carried out on the relay during normal operation. Ensure that all test equipment and leads have been correctly maintained and are in good condition.

No specialist test equipment is required.

## 2 Tests

As the tests can be best carried out with the transformers on load, care should be taken to ensure that no operation of the tap changers can take place when settings are changed. As settings will be changed for testing purposes, the operational levels should be noted prior to testing.

## 3 Basic Level Set-Point

Use a good quality RMS measuring voltmeter to measure the incoming voltage transformer level. Reduce the bandwidth control to  $\pm 1\%$  and operate the BASIC control to confirm the upper and lower limits are correct.

## 4 Load Drop Compensation (LDC) Set-Point

Determine the site load, the LDC is calibrated for the full site loading (firm capacity), i.e. if a site is half loaded the LDC effect will be halved. Reduce the bandwidth control to  $\pm 1\%$ , turn the LDC control to zero and adjust the basic setting until the relay UPPER deadband limit is reached. Increase the LDC control until the LOWER deadband limit is reached. The effective LDC at this point is 2% and can be related to the dial setting to confirm the correct effect.

## 5 Alarms

With the tap changer disabled alter the basic setting to allow the relay to read low. Check operation of alarm contacts.

## 6 Completion

On completion of tests all settings can be returned to normal.

# 7 DEFECT REPORT FORM

Form sheet for repairs and returned goods (fields marked with \* are mandatory fields)

**Sender:**

* <b>Name, first name:</b>	Complete phone number (incl. country code):	Complete fax number (incl. country code):
Email address:	* <b>Org-ID and GBK reference:</b>	* <b>AWV:</b>

\* **Order-/ reference-no (choosing at least 1 option):**

Order-no for repair:	order-/ delivery note-no for return of commission failure:	Beginning order-no for credit note demand:
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**Information concerning the product and its use:**

* <b>Order Code (MLFB):</b>	Firmware version: V	* <b>Serial number:</b>	
* <b>Customer:</b>	Product was in use approximately since:	Station/project:	Hotline Input no.:
Customer original purchase order number:	Delivery note number with position number:	Manufacturer:	

\* **Type of order (choosing at least 1 option):**

<input type="checkbox"/> Repair	<input type="checkbox"/> Return of commission failure	<input type="checkbox"/> Credit Note
<input type="checkbox"/> Upgrade / Modification to ...	<input type="checkbox"/> Warranty repair	<input type="checkbox"/> Quotation (not repair V4 and current products! See prices in PMD)
	<input type="checkbox"/> For collection	

**Type of failure:**

<input type="checkbox"/> Device or module does not start up	<input type="checkbox"/> Mechanical problem	<input type="checkbox"/> Overload
<input type="checkbox"/> Sporadic failure	<input type="checkbox"/> Knock sensitive	<input type="checkbox"/> Transport damage
<input type="checkbox"/> Permanent failure	<input type="checkbox"/> Temperature caused failure	<input type="checkbox"/> Failure after ca <input type="text"/> hrs in use
<input type="checkbox"/> Repeated breakdown	<input type="checkbox"/> Failure after firmware update	

**Error description:**

<input type="checkbox"/> Display message: (use separated sheet for more info)																				
<input type="checkbox"/> Active LED messages:																				
<input type="checkbox"/> Faulty Interface(s), which?	<input type="checkbox"/> Wrong measured value(s), which?	<input type="checkbox"/> Faulty input(s)/output(s), which?																		

\* **Detailed error description (please refer to other error reports or documentation if possible):**

\* **Shall a firmware update be made during repair or mechanical upgrade of protective relays? (choosing at least 1 option)**

<input type="checkbox"/> Yes, to most recent version	<input type="checkbox"/> No	<input type="checkbox"/> Yes, actual parameters must be reusable
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**repair report:**

<input type="checkbox"/> Yes, standard report (free of charge)	<input type="checkbox"/> Yes, detailed report (charge: 400EUR)
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**Shipping address of the repaired/upgraded product:**

Company, department \_\_\_\_\_

Name, first name \_\_\_\_\_

Street, number \_\_\_\_\_

Postcode, city, country \_\_\_\_\_

**Date, Signature**

Please contact the Siemens representative office in your country to obtain return instructions.

E D EA MF TCC 6 release from 11/2009