

ICS 17.220
CCS A 55

JJG

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JJG 691-2014

Replacing JJG 691-1990

**Verification Regulation of Multi-Rate Electricity Meters for
Measuring Alternating-current Electrical Energy
(English Translation)**

Issued on: June 15, 2014

Implemented on: December 15, 2014

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

Table of Contents

Introduction (II)

1 Scope (1)

2. References (1)

3 Overview (1)

4 Metering performance requirements (1)

4.1 Basic error (1)

4.2 Creep (2)

4.3 Start (2)

4.3 Start (2)

Constant of 4.4 (2)

5 General technical requirements (3)

Flag 5.1 (3)

6.4 Verification Methods (5)

Processing 6.5 Verification Results (7)

6.6 Test cycle (7)

Appendix A multi-rate AC electrical energy meter calibration reference the original record format (8)

Appendix B test certificates/test results in the notice page format (p. 2) (14)

C calibration certificate/test results test results page notice Shape appendix (3) (15) Energy Test Method for Error Appendix D test with electronic counters and electronic multi-rate table (21)

Introduction

This procedure based on JJF1002-2010 "national verification procedures write rules" establishment.

This procedure reference GB/T 15284-2002 "tariff applications special requirements", GB/T 17215.211-2006 "AC measuring equipment General requirements, tests and test conditions

Part 11. Measuring Device", GB/T 17215.421-2008 "exchange fee measure control and load control - Part 21. Particular requirements for time switches Seeking "and JJF1245.6-2010" installed energy meter type evaluation outlining the special requirements meter functional class " and other standards for JJG 691-1990 "mind sharing degree (multi-rate) meter test procedures" have been revised.

Compared with JJG 691-1990, in addition to editorial changes, the main changes in the technical part as follows.

- Procedure name from the original "time record of (multi-rate) meter" to "multi-rate watt-hour meter exchange";
- Changes in the scope of this procedure is only applicable to a digital display time of the switch, and battery (Or capacitance) do work backup power tariff applications;
- For electronic multi-rate watt-hour meter and electrical multi-rate energy meter metering performance requirements are proposed;
- Revised test method for measuring daily timing error;
- Increasing the clock indication error test;
- Increasing the initial verification tests for Error indication of energy.

The previous versions of this Recommendation published as follows.

JJG 691-1990 "mind sharing degree (multi-rate) meter test procedures" Multi-rate AC electrical energy meter testing procedures

1 Scope

The order applies to the reference frequency of 50Hz or 60Hz AC power meter multi-rate (referred to as the multi-rate table) Initial verification and subsequent verification.

The order applies to a digital display time of the switch, the power supply and do backup battery (or capacitor) Multi-rate tables.

For multifunction meter with a time-measurement, the same verification procedure of the project implementation.

This procedure does not apply to the field of multi-rate table test.

2. References

This procedure refers to the following documents.

JJG 307-2006 electromechanical AC power meter JJG 596-2012 electronic AC power meter JJG 597-2005 AC power meter testing equipment GB/T 17215.352-2009 AC measuring equipment - Specific requirements - Part 52. Symbols for dated references, only the dated edition applies to this procedure; undated reference documents Member, the

latest edition (including any amendments) applies to this procedure.

3 Overview

Multi-rate tables, also known as time-measurement meter or multi-rate meter, which is provided with a plurality of counters, each counter and in Predetermined period of time corresponding to different rates of Implementation of work. Multi-rate tables mainly by energy measurement unit, clocked Unit, counters and other components. Counters may be an electromechanical device or a reservoir and a display by the group it can be stored into the electronic device and display information. A single electronic display, a plurality of electronic reservoir for use to form a plurality of electronic counters and.

According to the principle of energy measurement unit, multi-rate table can be divided into electronic multi-rate tables and electromechanical multi-rate tables.

Energy measurement unit electronic multi-rate table is constituted by a solid-state electronic components; electromechanical energy measurement single multi-rate table Yuan is the induction system measuring mechanism.

4 metering performance requirements 4.1 basic error Electronic multi-rate meter shall comply JJG 596-2012 4 metering performance requirements;

Electromechanical Multi-rate tables should comply JJG 307-2006 3 metering performance requirements.