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

GB/T 17215.821-2017

Replacing GB/T 3925-1983 Partial

**Electricity metering equipment ((a.c.) -- Acceptance inspection
-- Part 21: Particular requirements for electromechanical meters
for active energy (classes 0.5, 1 and 2)**

(English Translation)

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Foreword

GB/T 17215.8 "AC measuring equipment acceptance test" is divided into the following three parts.

--- Part 11 common acceptance test methods;

--- Part 21 Particular requirements for electromechanical active energy meters (class 0.5, class 1 and class 2);

--- Part 31 Particular requirements for stationary active watt-hour meters (Class 0.2S, Class 0.5S, Class 1 and Class 2).

This section GB/T 17215.8 Part 21.

This section drafted in accordance with GB/T 1.1-2009 given rules.

Part of this section instead of GB/T 3925-1983 "2.0 AC ammeter acceptance method", compared with GB/T 3925-1983 the technical changes are as follows.

--- Expanded applicable electromechanical (induction) AC active watt-hour meter accuracy grade range, only for the 2.0-level expansion to 0.5, 1 and 2, and added a new 0.5 and 1 level electromechanical AC active energy meter acceptance test requirements and test methods;

--- Removed the sampling plan, test methods and acceptance criteria for the contents of these elements incorporated into GB/T 17215.811;

--- Modify the test reference conditions (GB/T 3925-1983 referred to as "rated conditions"), while adding a "multi-phase instrument of electricity Pressure and current balance "conditions;

--- Modify the expression of measurement uncertainty and the provisions of the value;

--- Modify some of the pilot project's technical indicators;

--- Modify the test record test table part of the project.

This section uses the translation method identical with IEC 62058-21:2008 "AC measuring equipment acceptance test Part 21. Electromechanical the special requirements of active energy meter (0.5 level, level 1 and level 2) ".

This section also made the following editorial changes.

--- Modify $e(I, \cos\phi) = \pm 2\%$ in the example of 4.3 to $e(I, \cos\phi) = 2\%$; $e_{\text{corr}}(I, \cos\phi) = \pm (6/5 \times 2.0-0.5) = \pm 1.9 (\%)$ to $e_{\text{corr}}(I, \cos\phi) = 6/5 \times 2.0-0.5 = 1.9 (\%)$.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This part is proposed by China Machinery Industry Federation.

This part of the National Electrical Instrumentation Standardization Technical Committee (SAC/TC104) centralized.

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1 Scope

This section GB/T 17215.8 specifies the newly manufactured direct access or through the transformer access electromechanical active watthour meter (0.5, Class 1 and Class 2) (hereinafter referred to as the "instrument") inspection and acceptance of the special requirements of these instruments in the same batch delivery of not less than 50 units. for the same batch of delivery of less than 50 units of acceptance, production and consumer should be negotiated.

The process described here is mainly for acceptance testing between producer and consumer.

It can also be used for other purposes, such as supporting initial validation.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 17215.811-2017 AC measuring equipment acceptance test - Part 11. General acceptance test method (IEC 62058-11:2008, IDT) Guide to the expression of uncertainty of measurement ISO/IEC Guide 98.1995 (Guidetotheexpressionofuncertaintyin measurement

3 Terms and definitions, symbols and abbreviations

GB/T 17215.811-2017 defined terms and definitions, symbols and acronyms apply to this document.

4.1 Test site

The provisions of 5.15 GB/T 17215.811-2017 applies to this section.

4.2 Reference conditions

The test shall be carried out under the conditions of Table 1 and Table 2.

Table 1 multiphase instrument voltage and current balance
condition

The accuracy of the instrument level 0.5 1 2 each phase voltage (phase and neutral) and line voltage (phase and phase) and the corresponding electricity the average pressure difference should not be greater than $\pm 0.5\%$ $\pm 1\%$ $\pm 1\%$ the difference between the average of each phase current and each phase current shall not be greater than $\pm 1\%$ $\pm 2\%$ $\pm 2\%$