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

GB/T 17215.211-2021

Replacing GB/T 17215.211-2006

**Electricity metering equipment(AC) - General requirements,
tests and test conditions - Part 11: Metering equipment**

电测量设备（交流）通用要求、试验和试验条件 第11部分：测量设备

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1 Scope

GB/T 17215.211-2021 is the Chinese national standard on electricity metering equipment(ac) - general requirements, tests and test conditions - part 11: metering equipment, in the field of metrology and measurement. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 April 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 November 2021. Classification: ICS 17.220.20, CCS N22. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 17215.2 specifies the general mechanical and electrical equipment applicable to the type test of AC electric energy meters (hereinafter referred to as "meters"). Gas requirements and test conditions, requirements for functions and markings, requirements and test conditions related to climate and electromagnetic environment, resistance to external influences and tests Test conditions and embedded software requirements. Note

1.For other general requirements of the instrument (such as safety, reliability, etc.), please refer to the relevant parts of GB/T 17215.3 (all parts) and GB/T 17215.9 (all parts) Minute. For the specific accuracy requirements and other special requirements of each accuracy level instrument, please refer to the relevant regulations of GB/T 17215.3 (all parts). This part is applicable to newly manufactured electricity used to measure and control electric energy in a 50Hz or 60Hz power grid with a voltage not exceeding 600V. The measuring equipment, all the special function units except for the electric energy measurement function, can be integrated in the watch case or form a separate housing. Note

2.The above voltage is the line-to-neutral voltage derived from the nominal voltage, see Table 7 in IEC 62052-31.2015. If the meter has functions other than measuring active

energy and reactive energy, for example.

---Measurement of voltage amplitude, current amplitude, power, frequency, power factor (or $\sin\phi$), etc.;

---Measurement of power quality parameters;

---Measurement of other forms of energy such as water, gas, steam, heat, etc.;

---Load control function;

---Data communication interface. Encapsulated in the case, the relevant standards can be applied to these functional requirements, but the requirements for these functions are not within the scope of this section. Note

3.The requirements for power monitoring devices and measurement functions (such as voltage amplitude, current amplitude, power, frequency, etc.) have been covered in GB/T 18216.12, but Equipment that complies with GB/T 18216.12 is not suitable for use as a billing meter, unless it also complies with this part and GB/T 17215.3 (all parts) Relevant regulations. Note

4.The requirements for power quality monitoring instruments have been covered in IEC 62586-1, and the test methods for power quality monitoring functions have been included in GB/T 17626.30 Covered in. The test requirements for power quality monitoring functions are covered in IEC 62586-2. If the instrument is designed to be installed on a specified matching (instrument) socket or rack, the requirements of this section apply, and the instrument is The meter is installed on the specified matching (instrument) socket or rack, but the requirements for the specified matching (instrument) socket or rack are not in this section. Within the range. Note

5.Examples of rack-mounted instruments are. rail-mounted instruments, panel-mounted instruments, etc. If the instrument is designed to install a separate indicating display, the requirements of this section apply. If each phase of the meter has multiple current circuits, the requirements of this section apply to all the electrical circuits of any current measuring unit in the case. Flow circuit. This section also applies to auxiliary input and output circuits, work indicators and test outputs of measuring equipment. Note

6.For example. pulse input and output, control input and output, electric energy test output. This section also covers the general content of the accuracy test, such as reference conditions, repeatability. This section distinguishes.

---Electromechanical instruments and static instruments;

---Single-phase instrument and multi-phase instrument; IEC 61000-4-8.2009
Electromagnetic compatibility (EMC) Part 4-