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JJF

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

JJF 1261.20-2017

Replacing JJF 1261.20-2015

**Rules of Metrology Testing for Energy Efficiency of Power
Transformers
(English Translation)**

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Introduction

In order to standardize the energy metering and testing of power transformers that implement energy efficiency labeling management, JJF 1261.1-2017 The requirements of the Energy Efficiency Measurement and Measurement Rules for Energy Products are formulated.

This specification replaces JJF 1261.20-2015, in addition to editorial changes, in addition to JJF 1261.20-2015.

The main changes are as follows.

--- "5.1 Energy Efficiency Labeling" adds "energy efficiency information code" and "energy efficiency 'leader' information" Wait for;

--- The original record format and test report format are modified accordingly (Appendix E and Appendix F).

The previous versions of this specification were released as follows.

---JJF 1261.20-2015.

Power transformer energy efficiency measurement and detection rules

1 Scope

This specification applies to rated frequency of 50Hz, voltage level of 35kV~220kV, rated capacity of 3150kVA Energy efficiency measurement requirements, measurement test procedures, measurement and detection methods, and the above three-phase oil-immersed power transformers Measurement criteria and test reports.

This specification is applicable to the energy efficiency measurement and supervision of power transformers. The commissioned inspection can be carried out with reference to this specification. Health Units that produce and sell power transformers may also be tested with reference to this specification.

The power transformer to be tested shall be the product that the producer has passed the self-test or the goods that the seller imports or sells.

This specification does not apply to dry-type transformers, high-impedance transformers, and gas-filled transformers.

2 reference files

This specification refers to the following documents.

JJF 1261.1-2017 energy efficiency measurement and testing rules for energy products GB 1094.1-2013 Power transformers - Part 1. General GB/T 2829-2002 Periodic inspection count sampling procedures and tables (applicable to the inspection of process stability) GB 24790-2009 Power transformer energy efficiency limit value and energy efficiency rating JB/T 501-2006 Power Transformer Test Guide for dated references, only dated versions apply to this specification; undated quotations the latest version (including all amendments) applies to this specification.

3 terms and units of measure the following terms and units of measurement apply to this specification.

3.1 Power transformer energy efficiency consumption limit value
minimum allowable values of energy efficiency Consumption for power transformer the maximum allowable limit for no-load loss and load loss of power transformers under specified test conditions, measured in W.

3.2 No-load loss when the rated voltage of the rated frequency (tap voltage) is applied to the terminals of one winding and the other windings are open, the active power drawn is measured in kW.

3.3 load loss in a pair of windings, when the rated current (drop current) flows through the line terminal of one winding, and the other winding in the case of a short circuit, the active power drawn at the rated frequency and the reference temperature is measured in kW. At this time, other winding Groups (if any) should be open. The data measured by the test needs to be corrected to the reference temperature. For oil-immersed transformers, the reference is made.

The temperature is taken at 75 °C.

Note:

1 For a two-winding transformer, there is only one pair of winding combinations and one load loss value. For multi-winding transformers, with multiple pairs