

ICS 27.180
CCS F11



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

GB/T 19071.2-2018

Replacing GB/T 19071.2-2003

**Wind turbines - Asynchronous generator - Part 2: Testing
methods**

风力发电机组 异步发电机 第2部分：试验方法

Issued on: July 13, 2018

Implemented on: February 1, 2019

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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Foreword

GB/T 19071 "Wind Generator Asynchronous Generator" is divided into two parts.

--- Part 1. Technical conditions;

--- Part 2. Test methods. This part is the second part of GB/T 19071. This part is drafted in accordance with the rules given in GB/T 1.1-2009. This part replaces GB/T 19071.2-2003 "Wind Generator Asynchronous Generator Part 2. Test Method". Compared with GB/T 19071.2-2003, this section is subject to the following editorial changes.

--- Revised the scope of application of the standard (see Chapter 1);

--- Added normative reference document GB/T 1029 (see Chapter 2);

--- Increased the content of safety measures in the test (see 3.1);

--- Revised the requirements for test equipment (see 3.2);

--- Increased appearance and mechanical inspection requirements (see 4.1);

--- Increased the "the difference between the average value of the three-phase resistance and the three-phase resistance should be no more than 2% of the average value" (see 4.3);

--- Increased phase sequence inspection requirements for windings (see 4.4);

--- Removed the rule that the average temperature rise calculated by the thermal resistance method and the temperature difference of the hottest temperature measured by the temperature measuring component should not exceed 10K. Set (see 4.6,

4.4 of the.2003 edition);

--- Increased the reference operating temperature of "different insulation heat classification (A, E, B, H)" (see Table 1,

4.5.4.1 of the.2003 edition);

1 Scope

GB/T 19071.2-2018 is the Chinese national standard on wind turbines - asynchronous generator - part 2: testing methods, in the field of energy and heat transfer engineering. 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 13 July 2018 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2019. Classification: ICS 27.180, CCS F11. 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 19071 specifies the test method for grid-connected, fixed-speed wind turbine asynchronous generators. This section applies to the performance test of single-speed or two-speed asynchronous generators (hereinafter referred to as "generators") for grid-connected, fixed-speed wind turbines.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1029 three-phase synchronous motor test method

GB/T 1032 three-phase asynchronous motor test method

GB/T 2423.16 Environmental testing for electric and electronic products - Part 2. Test methods Test J and guide.

GB/T 2423.17 Environmental testing of electric and electronic products - Part 2. Test method test Ka. salt spray

GB/T 4942.1 Rotating electrical machine overall structure protection class (IP code)

GB/T 10068 Measurement, evaluation and limits of mechanical vibration of motors with shaft heights up to 56 mm and above

GB/T 10069.1 Determination of noise and noise - Part 1

GB/T 10069.3 Determination of noise and noise - Part 3. Noise limit Damp heat test requirements for

GB/T 12665 motors used under normal environmental conditions

3 Test requirements and preparation

3.1 Safety measures Due to the dangerous voltage, current and mechanical force involved in the test, safe and effective precautions should be taken during the test, all tests It should be operated by personnel with relevant knowledge and experience.

3.2 Tested instruments and instruments

3.2.1 The measuring instruments, instruments and sensors used in the test shall be qualified by the metrological department and within the validity period.

3.2.2 The accuracy of the electrical measuring instrument used in the test shall not be less than 0.5 (except the megohmmeter), and the accuracy of the fuel cell shall not be Below 0.2, the accuracy of the power transmitter should be no less than 0.5, and the reading error of the tachometer should be within $\pm 1r/min$ (the accuracy should not be Below level 1.0),

the error of the thermometer should be less than ± 1 °C, the accuracy of the bridge or digital surrounding micro-ohmmeter should not be less than 0.2, other measuring instruments Instrumentation should comply with the relevant standards.

3.3 Measurement requirements Measurement requirements should meet the requirements of GB/T 1032.

3.4 Test preparation

3.4.1 The test generator should be in a normal state before the test, the wiring is correct, and the test circuit and equipment should meet the test requirements.