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Test specification for low-speed wind tunnel performance

低速风洞性能测试规范

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Low speed wind tunnel performance test specification

1 Scope

This document specifies the test requirements for low-speed wind tunnels (hereinafter referred to as wind tunnels) and provides corresponding test methods, test reports, etc.

This document is applicable to the main performance tests of meteorological low-speed wind tunnels with air velocity not exceeding 85m/s.

2 Normative references

This document has no normative references.

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Test section test section

The area in a wind tunnel used to install the instrument under test or the standard.

Note. When the wind tunnel has two or more test sections, the test section where the standard instrument is installed is called the main test section.

3.2 Uniformity of velocity

The uniformity of air velocity distribution on the same cross section in a wind tunnel test section.

3.3 Stability of velocity

The degree to which the air velocity in a wind tunnel test section pulsates over time.

3.4 velocity ratio

The ratio of the air flow velocity in other test sections to that in the main test section within the wind tunnel flow velocity range.

3.5

The amount of change in the air flow temperature in the test section caused by continuous operation of the wind tunnel.

Note. The unit is Celsius (°C).

4.1 Test items

According to the actual application needs, select the test section and test items. Test items

generally include flow rate range, flow rate uniformity, flow rate stability The test items shall comply with the requirements of Table 1.

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