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

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**Calibration Specification for Artificial Mains Networks
(English Translation)**

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Introduction

This specification is prepared in accordance with JJF 1071-2010 "Rules for the Preparation of National Metrology Calibration Specifications", JJF 1001 Measurement Terms and Definitions, JJF 1059.1-2012 "Measurement Uncertainty Evaluation and Representation" together constitute the support of this regulation the basic series of specifications for the development of the work.

This specification refers to GB/T 6113.102-2008 "Radio disturbance and immunity measurement equipment and measurement methods Part 1-2. Radio disturbance and immunity measurement equipment, auxiliary equipment conducted disturbances, GB/T 6113.201-2017 "Specifications for radio disturbance and immunity measuring equipment and methods of measurement - Part 2-1.

Radio disturbance and immunity measurement method for conducted disturbance measurement, GB 1002-2008 "Household and similar use list Compilation of relevant provisions for phase plug and socket type, basic parameters and dimensions.

This specification is the first release.

Artificial power network calibration specification

1 Scope

This specification applies to GB/T 6113.102-2008 "Radio disturbance and immunity measurement equipment and measurement".

Method Specification Part 1-2. Requirements for Conducted Harassment in Auxiliary Equipment for Radio Disturbance and Immunity Measurement Equipment Calibration of a V-type artificial power network (hereinafter referred to as "artificial power network"). Includes three types.

- 1) 50ohm/50μH 5ohm type, the operating frequency range is 9kHz~150kHz;
- 2) 50ohm/50μH type, the operating frequency range is 0.15MHz~30MHz;
- 3) 50ohm/5μH 1ohm type, the operating frequency range is 0.15MHz~108MHz.

2 reference files

This specification refers to the following documents.

GB/T 6113.102-2008 Specification for radio disturbance and immunity measuring equipment and measuring methods - Part 1-2 Points. Radio disturbance and immunity measurement equipment auxiliary equipment conducted disturbance GB/T 6113.201 Radio disturbance and immunity measurement equipment and methods of measurement - Part 2-1.

Line electrical disturbance and immunity measurement method conducted disturbance

measurement GB 1002 Single-phase plug and socket type and basic parameters and dimensions for household and similar purposes for dated references, only dated versions apply to this specification; undated quotations the latest version (including all amendments) applies to this specification.

3 terms

3.1 asymmetric voltage unsymmetricvoltage the vector magnitude of the RF disturbance voltage that appears between a single power terminal and ground.

3.2 Test end impedance EUTportimpedance Refers to the line terminal and reference of the device under test when the disturbance output of the artificial power network is terminated with a 50ohm load impedance.

High frequency impedance (modulus and phase angle) between the test sites.

3.3 partial pressure coefficient voltage division factor Refers to the high frequency signal fed from the device under test, transmitted to the disturbance output via the internal power supply network (built-in attenuation) the magnitude of the amplitude experienced by the device within the calculation range.

4 Overview

The artificial power network is an instrument used in electromagnetic compatibility radio disturbance measurement tests to measure power lines and parameters.

The disturbance voltage radiated externally between the test sites is usually an asymmetric voltage. Artificial power network in the harassment test the role of the quantity is.

- 1) providing a specified impedance to the terminals of the device under test in the RF frequency range;
- 2) coupling the disturbance voltage emitted by the device under test to the disturbance measuring device;