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JJF 1741-2019

Calibration Specification for Surge Simulators

浪涌（冲击）模器校准规范

(English Translation)

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Introduction

This specification is based on JJF 1071-2010 "Rules for the Compilation of National Metrology and Calibration Specifications", JJF 1059.1-2012 "Measurement the requirements in "Evaluation and Expression of Uncertainty of Measurement" shall be compiled.

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This specification refers to GB/T 17626.5 "Electromagnetic compatibility test and measurement technology surge (impact) immunity test Test" and IEC 61000-4-5:2014 "Electromagnetic compatibility test and measurement technology surge (impact) immunity test" Relevant clauses in the this specification is released for the first time.

Surge (impact) simulator calibration specification

1 Scope

This specification applies to surge (impact) resistance in accordance with GB/T 17626.5 "Electromagnetic compatibility test and measurement technology" Disturbance Test" and IEC 61000-4-5:2014 "Electromagnetic Compatibility Test and Measurement Technology Surge (Impact) Immunity the calibration of the surge (impact) generator and coupling and decoupling network required in the "Degree Test" is also suitable for electromagnetic compatibility immunity Calibration of the surge (impact) simulator part of the comprehensive test system.

2 Reference documents this specification refers to the following documents.

GB/T 17626.5 Electromagnetic compatibility test and measurement technology surge (impact) immunity test IEC 61000-4-5:2014 Electromagnetic compatibility test and measurement technology surge (impact) immunity test (Electromagneticcompatibility-Testingandmeasurementtechniques-Surgeimmunity test) for dated reference documents, only the dated version applies to this specification; for undated references the latest version (including all amendments) is applicable to this specification.

3 Terms and units of measurement the following terms and definitions defined in GB/T 17626.5 apply to this code.

3.1 Surge (impact) surge A transient wave of current, voltage or power transmitted along a line or circuit, which is characterized by a rapid rise first and then a slow decline.

3.2 Fronttime

The wavefront time of the surge (impact) voltage is a virtual parameter, defined as two points. 30% peak and 90% peak the corresponding time interval between 1.67 times, the unit is μs.

The wavefront time of the surge (impact) current is a virtual parameter, defined as two points. 10% peak and 90% peak 1.25 times of the time interval corresponding to between, the unit is μs.

3.3 duration

The duration of surge (impact) voltage is that the surge (impact) voltage rises to 50% peak value and drops to 50% the time interval between the two peak points, in μs.

The duration of surge (impact) current (differential mode) is a virtual parameter, defined as

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surge (impact) current 1.18 times the corresponding time interval between the two points rising to 50% peak and falling to 50% peak, the unit is μs.

The duration of surge (impact) current (common mode) is a virtual parameter, defined as surge (impact) current 1.04 times the corresponding time interval between the two points rising to 50% peak and falling to 50% peak, the unit is μs.

The short-circuit current duration of a surge simulator used for unshielded outdoor symmetrical communication lines is defined as surge (impact) current the time interval between the two points when the flow rises to 50% peak value and when it drops to 50% peak value, the unit is μs.

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