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PEOPLE'S REPUBLIC OF CHINA**

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**Electromagnetic compatibility -- Testing and measurement techniques
-- Voltage dips, short interruptions and voltage variations immunity
tests for equipment with mains current more than 16 A per phase**

电磁兼容 试验和测量技术 主电源每相电流大于16A的设备的电压暂降、短时中断
和电压变化抗扰度试验

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Electromagnetic compatibility test and measurement technology main power supply Voltage sag of equipment with current per phase greater than 16A, Short-term interruption and voltage change immunity test

1 Scope

This part specifies the immunity test of electrical and electronic equipment connected to the low-voltage power supply network against voltage sags, short-term interruptions and voltage changes Method and preferred range of test levels.

This section applies to electrical and electronic equipment with a rated current of more than 16A per phase of the main power supply (electrical and electronic equipment with a rated current of more than 200A per phase).

See Appendix E) for guidelines for electronic devices. This part is applicable to 50Hz or 60Hz AC installed in residential and industrial areas Single-phase and three-phase equipment where voltage sags and short-term interruptions may occur in the network.

Note 1: Refer to GB/T 17626.11 for the requirements of equipment with the rated current of each phase of the main power supply not greater than 16A.

Note 2: This section does not specify the upper limit of the rated input current. However, in some countries, there are mandatory safety standards, so each phase of a certain main power supply is regulated.

The upper limit of constant current, such as 75A or 250A.

This section does not apply to electrical and electronic equipment connected to a 400Hz AC network. Tests of devices connected to these networks will be covered in future standards.

The purpose of this section is to establish an evaluation of the immunity of electrical and electronic equipment when subjected to voltage sags, short-term interruptions and voltage changes.

General guidelines.

Note 1: For voltage fluctuation test, see GB/T 17626.14.

Note 2: For the equipment under test with a rated current greater than 250A, it may be difficult to obtain suitable test equipment. In this case, general standards, product standards the professional committees of product standards and product standards should carefully evaluate the applicability of this section. This section can also be used as a performance negotiated between the manufacturer and the purchaser.

The framework of the criterion.

The test methods specified in this section are methods for evaluating the immunity of equipment or systems to defined electromagnetic phenomena. This part is part of the basic electromagnetic compatibility standard. The professional standardization technical committee is responsible for determining whether this immunity test standard is applicable. If applicable, it is responsible for determining the appropriate test level and performance criteria. The Electromagnetic Compatibility Standardization Technical Committee and its sub-committees prepare to the technical committee of Zhunhua cooperated to evaluate the specific immunity test value for its products.

2 Normative references the following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 4365 Electrotechnical terminology electromagnetic compatibility (GB/T 4365-2003, IEC 60050(161)..1990, IDT) GB/Z 18039.7 Voltage sag, short-term interruption and measurement statistics in public power supply system in electromagnetic compatibility environment (GB/Z 18039.7-2011, IEC/T R61000-2-8.2002, IDT) IEC 61000-4-30 Electromagnetic Compatibility (EMC) Part 4-30. Test and Measurement Technology Power Quality Measurement Method (Electromagnetic compatibility (EMC)-Part 4-30. Testing and measurement techniques-Power quality measurement methods)

3 Terms and definitions the following terms and definitions defined in GB/T 4365 apply to this document.

Basic EMC standard basic EMC standard Standards for general and basic conditions or rules given to achieve electromagnetic compatibility, which are related to all products and systems, or applicable it applies to all products and systems, and can be used as a reference document for relevant professional standardization technical committees.

Immunity (to disturbance) the ability of a device, equipment or system to face electromagnetic disturbance without degrading its operating performance.

[GB/T 4365-2003, 161-01-20] 3.3 Voltage dip the voltage at a certain point of the electrical power supply system suddenly drops below the specified sag threshold, and then recovers after a short interval to normal value.

Note 1: A typical sag is related to the occurrence and termination of a short circuit, or is related to a sharp increase in current on the system or system connected to the device.

Note 2: Voltage sag is a two-dimensional electromagnetic disturbance, and its level is determined by voltage and time (duration).

Short interruption