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GB/T 12113-2023 / IEC 60990:2016

Replacing GB/T 12113-2003

**Methods of Measurement of Touch Current and Protective
Conductor Current**

(IEC 60990:2016, IDT)

接触电流和保护导体电流的测量方法

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 *Directives for Standardization – Part 1: Rules for the Structure and Drafting of Standardizing Documents*.

This Document replaced GB/T 12113-2003 *Methods of Measurement of Touch Current and Protective Conductor Current*. Compared with GB/T 12113-2003, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications:

- Delete the understanding based on the current effects; reduce the reference of quotation of use conditions of “grippable components” (see 3.4 and Annex H of 2003 Edition).

This Document equivalently adopted IEC 60990:2016 *Methods of Measurement of Touch Current and Protective Conductor Current*.

Please note some contents of this Document may involve patents. The issuing agency of this Document shall not assume the responsibility to identify these patents.

This Document was proposed by and under the jurisdiction of Ministry of Industry and Information Technology of the People’s Republic of China.

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This Document was first-time published in 1996; first-time revised in 2003; and it is second-time revised hereby.

Methods of Measurement of Touch Current and Protective Conductor Current

1 Scope

This Standard defines measurement methods for

- d.c. or a.c. current of sinusoidal or non-sinusoidal waveform, which could flow through the human body, and
- current flowing through a protective conductor.

The measuring methods recommended for TOUCH CURRENT are based upon the possible effects of current flowing through a human body. In this standard, measurements of current through networks representing the impedance of the human body are referred to as measurements of TOUCH CURRENT. These networks are not necessarily valid for the bodies of animals.

The specification or implication of specific limit values is not within the scope of this standard. IEC 60479 series provide information regarding the effects of current passing through the human body from which limit values may be derived.

This standard is applicable to all classes of EQUIPMENT, according to IEC 61140.

The methods of measurement in this standard are not intended to be used for

- TOUCH CURRENTS having less than 1 s duration,
- patient currents as defined in IEC 60601-1,
- a.c. at frequencies below 15 Hz, and
- currents above those chosen for ELECTRIC BURN limits.

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One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications. The requirements, test methods or test conditions of this basic safety publication only apply when specifically referred to or

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