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

GB/T 28869.1-2012

Replacing GB/T 9632.1-2002

**Cores made of soft magnetic materials -- Measuring methods --
Part 1: Generic specification**

软磁材料制成的磁心 测量方法 第1部分：通用规范

(English Translation)

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Foreword

GB/T 28869 "Measuring methods of cores made of soft magnetic material" intended to be divided into three parts.

--- Part 1. Generic specification;

--- Part 2. Magnetic properties at low excitation level of;

--- Part 3. Magnetic properties under high excitation level.

This is Part 1 GB/T 28869 of.

This section based on GB/T 1.1-2009 given rule drafting.

This section uses the translation method is equivalent to using IEC 62044-1:2002 "core measuring methods - Part 1 soft magnetic material. General specification".

And IEC 62044-1. compared to 2002, this standard also made the following editorial changes.

--- Change the original standard error, namely 3.1 "clause4" to "clause5";

--- Remove the original IEC standard "Preface." this Part replaces GB/T 9632.1-2002 "Inductor and transformer cores measuring method" in the first chapter General 1 to 6.

This section compared with the GB/T 9632.1-2002 main changes are as follows.

--- Since the original standard is equivalent to using IEC 60367-1. 1982, AMD1. 1984, AMD2.1992. IEC 60367-1 standard has been IEC 62044-1, IEC 62044-2 and IEC 62044-3 replaced. This section identical with IEC 62044-1:2002. This section Specified range are quite different compared with the original standards.

--- This section of Part 2, Part 3 together instead of GB/T 9632.1-2002, compared with the

original standards, the only soft part General Principles of possible measurements of core material to be followed were predetermined, and the measurement of specific parameters Respectively prescribed by Part 2 and Part 3.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Magnetic components and ferrite materials Standardization Technical Committee (SAC/TC89) centralized.

This section drafted by. Ministry of Industry and Information Technology Magnetic Products Quality Supervision and Inspection Center.

1 Scope and purpose

GB/T 9632 This section applies to the core of a soft magnetic material, these cores for inductors, transformers and electromagnetic interference Devices.

This section is used to guide the magnetic and non-magnetic properties (such as mechanical, electrical properties, etc.) specification measurements.

This section is limited to the general principles of the various possible methods of measurement to be followed. For the measurement of magnetic properties, it should consider the use of the test line Circle the measured results can directly use the core corresponding to the characteristic parameters of the magnetic elements (such as inductors), therefore, should select the appropriate measurement method, in order to obtain a better relationship with the corresponding equivalent measurement results of the magnetic element.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

IEC 60068 (all parts) environmental tests

3.1 General

For the measurement method has been established, if the request for the normalization of the magnetic core, should be required to be in Chapter 5. in the whole process, Core should be protected from mechanical damage and magnetic interference. Avoid condensation temperature change test winding phenomenon that may arise.

3.2 Ambient Temperature

Unless otherwise specified, the entire measurement process should follow IEC 60068, carried out within the scope of the standard atmospheric conditions for testing at a certain temperature.

But in the entire measurement period, the temperature can not be varied to the extent that significantly affect the measurement results. In some cases, allows the use of temperature control box (room). Has been installed on the measuring coil and core clamping device, sufficient time should be placed so as to achieve thermal equilibrium at the test temperature environment.

Temperature during measurement should be marked.

NOTE: Measurements can be at any temperature 15 °C ~ 35 °C performed, but is preferably carried out at 25 °C ± 3 °C in.

4 Universal Precautions

4.1

Relationship with the practical application of Select the measurement conditions, the measurement results should be suitable for the core are expected in actual use environment performance, but that does not mean that all Conditions must be consistent with the actual conditions of use.

More than 4.2 part of the composition of the core assembly If the load measuring coil cores by more than one part, the whole measurement process used in a clamping device fixed. The clamping Means should be met.