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

GB/T 7095.1-2008

**Enamelled rectangular copper winding wires -- Part 1: General
requirements**

(English Translation)

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Foreword

GB/T 7095-2008 Enameled Rectangular Copper Winding Wires consists of the following 7 parts:

- Part 1: General Requirements;
- Part 2: Polyvinyl Acetal Enameled Rectangular Copper Wire Class-120;

- Part 3: Polyester Enameled Rectangular Copper Wire Class-155;
- Part 4: Polyesterimide Enameled Rectangular Copper Wire Class-180;
- Part 5: Aromatic Polyimide Enameled Rectangular Copper Wire Class-240;
- Part 6: Polyester or Polyesterimide Overcoated with Polyamide-Imide Enameled Rectangular Copper Wire Class-200;
- Part 7: Polyester Enameled Rectangular Copper Wire Class-130.

This Part is Part 1 of GB/T 7095.

This Part equivalently adopted IEC 60317-0-2:2005 Specifications for Particular Types of Winding Wires - Part 0-2: General Requirements - Enameled Rectangular Copper Wire (English Version).

For ease of use, this Part has made the following editorial changes:

- Delete the Foreword and Introduction of the international standard;
- Use the decimal point '.' instead of the comma ',' as a decimal point;
- Add informative Annex F "Model and Comparison List of the Enameled Rectangular Copper Winding Wire";
- Add informative Annex G "Test Item Categories";
- Add NOTE 3 in Clause 15.

This Part replaced GB/T 7095.1-1995 since the date of implementation.

Compared with GB/T 7095.1-1995, the major changes of this Part are as follows:

- Rewrite GB/T 7095.1-1995 according to the structure and content of IEC 60317-0-2:2005;
- Add definitions of "coating", "double coating" and "enameled wire" in Clause 3;
- Clearly define "nominal size and nominal cross-sectional area of conductor", "size tolerance of conductor", "rounded corners" and "overall dimensions" in "Dimension" (Clause 7 of the 1995 Edition; Clause 4 of this Edition);
- Cancel the "scratch resistance" test requirement (Clause 13 of the 1995 Edition);
- In the "resistance" and "elongation" tests, cancel the provisions for the DC resistance and elongation of aluminum conductors (Clauses 9 and 10 of the 1995 Edition);

- Add Clause 8 "Flexibility and adhesion" and Clause 9 "Thermal shock" tests;
- Add Clause 15 "Temperature Index" and Clause 19 "Dielectric loss coefficient" tests;
- Revise the packaging provisions (Clause 19 of the 1995 Edition; Clause 30 of this Edition);
- Incorporate the contents of Annexes B and C of the 1995 Edition into the main text of the standard (Tables 1 and 3 of this Edition);
- Add Annex A "Nominal Cross-sectional Area of Preferred and Intermediate Dimensions", Annex B "Special Tolerances", Annex E " Failure Test at High Temperature ", Annex F "Models and Comparison List of Enameled Rectangular Copper Winding Wire" and Annex G "Test Item Categories".

The Annexes A, B, E, F, and G of this Part are informative.

This Part was proposed by China Electrical Equipment Industry Association.

This Part shall be under the jurisdiction of National Technical Committee on Wires and Cables

of Standardization Administration of China (SAC/TC 213).

Drafting organizations of this Part: Shanghai Electric Cable Research Institute; Shanghai Yangxing Copper Materials Co., Ltd.; Baoding Tianwei Electric Wire Co., Ltd.; Essex Magnet Wire (Tianjin) Co., Ltd.; Wuxi Huanyu Magnet Wire Co., Ltd.; Shanghai Shenmao Magnet Wire Co., Ltd.; and Shunte Electric Co., Ltd. Panyu Branch.

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The historical editions replaced by this Standard are as follows:

- GB/T 7095.1-1986; GB/T 7095.1-1995.

Enameled Rectangular Copper Winding Wires - Part 1:

General Requirements

1 Scope

This Part of GB/T 7095 specifies the general requirements of enameled rectangular copper winding wires.

The range of nominal conductor dimensions is given in the relevant product standard (see Annex F for Models and Comparison List of Enameled Rectangular Copper Winding Wires). When reference is made to a winding wire according to a standard of the GB/T 7095 series mentioned under Clause 2, the following information is given in the description:

- GB number and/or IEC number;
- nominal conductor dimensions in millimeters (width x thickness);
- grade of paint film thickness.

EXAMPLE: GB/T 7095.3-2008 4.00x1.00 Grade 1; or IEC 60317-16-4.00 x1.00 Grade 1

2 Normative References

The provisions in following documents become the provisions of this Part through reference in this Part of GB/T 7095. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 4074.1 Winding wires - Test methods - Part 1: General (GB/T 4074.1-2008, IEC 60851-1:1996, IDT)

GB/T 4074.2 Winding wires - Test methods - Part 2: Determination of dimensions (GB/T 4074.2-2008, IEC 60851-2:1997, IDT)

GB/T 4074.3 Winding wires - Test methods - Part 3: Mechanical properties (GB/T 4074.3-2008, IEC 60851-3:1997, IDT)

GB/T 4074.4 Winding wires - Test methods - Part 4: Chemical properties (GB/T 4074.4-2008, IEC 60851-4:2005, IDT)

is given for a test, the test applies to all nominal conductor dimensions covered by the specification sheet.

Unless otherwise specified, all tests shall be carried out at a temperature from 15 °C to 35 °C

and a relative humidity from 45 % to 75 %. Before measurements are made, the specimens shall