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

GB/T 10066.7-2009

Replacing GB/T 10066.7-2004

**Test methods for electro-heat installations -- Part 7:
Electro-heating installation with electron guns**

电热装置的试验方法 第7部分：具有电子枪的电热装置

(English Translation)

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Foreword

GB/T 10066 "Standard Test Method for electric apparatus" has 13 sections.

--- Part 1. General section (GB/T 10066.1-2004, IEC 60398:1999, MOD);

--- Part 2. Induction Channel Furnace (GB/T 10066.2-2004, IEC 60396:1991, MOD);

--- Part 3. coreless induction furnace (GB/T 10066.3-2004, IEC 60646:1992, MOD);

--- Part 31. high frequency induction heating apparatus of the generator output power measurement (GB/T 10066.31-2007, IEC 61922.

2002, IDT);

--- Part 4. Indirect resistance furnaces (GB/T 10066.4-2004, IEC 60397:1994, NEQ);

--- Part 5. Plasma device (GB/T 13535-1992, neq IEC 60680. 1980, IEC has 2008 edition, to be transferred Technology);

--- Part 6. Determination of industrial microwave heating apparatus of power output (GB/T 10066.6-2008, IEC 61307:2006, IDT);

--- Part 7. Electric apparatus having an electron gun (GB/T 10066.7-2009, IEC 60703:2008, IDT);

--- Part 8. ESR furnaces (GB/T 10066.8-2006, IEC 60779:2005, IDT);

--- Part 9. High-frequency dielectric heating apparatus determination of power output (GB/T 10066.9-2008, IEC 61308:2005, IDT);

--- Part 10. Direct electric arc furnace (GB/T 10066.10-2005, IEC 60676:2002, MOD);

--- Part 11. submerged arc furnace (GB/T 10066.11-2005, IEC 60683. 1980, MOD);

--- Part 12. infrared heating means (GB/T 10066.12-2006, without a corresponding IEC standard).

NOTE: Test methods for some of the existing electric device did not use division number (as shown in brackets), in the amendment will change the predetermined number of divisions.

This section GB/T Part of 710,066.

This part of IEC 60703:2008 "Standard Test Method for electric apparatus having an electron gun" Synchronize amendment.

IEC 60703:2008 while drafting under this Part.

For ease of use, the IEC 60703:2008, this section made the following editorial changes.

--- "This standard" be replaced by "this section";

--- Delete international standards foreword and preface;

--- Increase GB 18871-2002 "Ionizing Radiation Protection and Safety of Radiation Sources basic standards";

--- Remove 3.1 to 3.13 Definition.

This Part replaces GB/T 10066.7-2004 "Standard Test Method for electric devices - Part 7. having an electron gun of electric equipment", and Compared to the latter, the main technical changes are as follows (listed only project name).

--- Remove GB/T 3907-1983 "Basic industrial radio interference measurement method" and GB 8703-1988 "radiation protection";

--- Increase IEC 60204-1:2005 "Safety of machinery - Electrical equipment - Part 1. General requirements" and GB 5226.3-2005 "Safety of machinery - Electrical equipment - Part 11. voltage is higher than 1000Va. c. or 1500Vd. c. But not exceeding the technical conditions of 36kV high-voltage equipment ";

--- Increase GB 18871-2002 "Ionizing Radiation Protection and Safety of Radiation Sources basic standards";

--- Delete the original 3.1 to 3.5 Definition of terms;

--- Definition increase of 3.1 to 3.7;

--- Change the original. "4 pilot projects, 5 and 6 test interval test methods" standard structure. "4 General test requirements, test auxiliary equipment 5 Mortem, 6 and 7 of the electron gun system test type test ";

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--- Increased by 4.1 test procedures;

--- Increased by 4.3 environmental conditions;

- Increased 5.1 assembly test;
- Increased 6.2 and high-voltage power cables;
- 6.2.4 increase internal calibration measurement system;
- Increased by 6.3 electron-beam bending test system;
- 7.3 electron beam parameters test;
- 7.3.2 increase the electron beam diameter.

This part is proposed by the China Electrical Equipment Industrial Association.

This part of the National Electric Equipment Industry Standardization Technical Committee (SAC/TC121) centralized.

This part mainly drafted by. Xi'an Jiaotong University, Xi'an Institute Ltd. furnace.

1 Scope and purpose

GB/T 10066 apply to this part having one or more electron gun as a means of electric heating source.

The purpose of this section is to make the determination of the electron gun having the basic parameters of electric devices, test methods and features technical data standardization.

This section does not contain a mandatory test item table, nor binding. Test items can be selected from the proposed project list. Having User and the manufacturer agreed technical documents electron gun electric device may be part of the contents of this supplement, but not contradict.

2 Normative references

The following documents contain provisions which, through reference GB/T 10066 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 2900.23-2008 Electrotechnical terminology industrial electric equipment (IEC 60050-841:2004, IDT) GB 5226.1-2008 Safety of machinery - Electrical machinery and electrical equipment - Part 1. General requirements (IEC 60204-1:2005, IDT) GB 5226.3-2005 Safety of machinery - Electrical equipment - Part 11. voltage is higher than 1000Va. c. Or 1500Vd. c.

But not exceeding 36kV high-voltage equipment and technical conditions (IEC 60204-11:2000, IDT) GB 5959.1-2005 Safety of electric devices - Part 1. General requirements (IEC 60519-1:2003, IDT) GB 5959.7-2008 Safety of electric devices - Part 7. A device having an electron gun of the special requirements (IEC 60519-7.

2008, IDT)

GB/T 10066.1-2004 Test methods for electric equipment - Part 1. General section (IEC 60398:1999, MOD) GB 18871-2002 ionizing radiation protection and safety of radiation sources basic standards

3 Terms and Definitions

GB/T 2900.23-2008 and GB 5959.7-2008 to establish the following terms and definitions apply to this section.

The cyclic scanning function and position of the electron beam, the pattern formed by overlapping positions.

Electron beam deviates from the center axis (optical axis) of the maximum angle.

At a given power, electron beam processing, electron gun assembly is not damaged deflection region limited.

An electron beam is deflected by the dynamic characteristics of the system, causing the amplitude decreases, the amplitude is reduced to half the value of the static deflection value corresponding to the frequency.

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