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

GB/T 10066.9-2008

Replacing GB/T 14809-2000

**Test methods for electro-heat installations -- Part 9: The
determination of power output for High-frequency dielectric
heating installation**

(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. Test methods ion plasma devices (GB/T 13535-1992 electroheat, neq IEC 60680. 1980);

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

--- Part 7. electric heating apparatus having an electron gun (GB/T 10066.7-2004, IEC 60703. 1981, NEQ);

--- 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).

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 910 066 and GB should be safe "electric device 5959.9-2008 Part 9. high frequency Particular requirements for dielectric heating apparatus "used in conjunction.

This section identical with IEC 61308:2005 "Determination of high-frequency dielectric heating apparatus of power output," the latter adopted a multi-country Reviews, test circuit wherein Appendix A for our proposed.

For ease of use, the IEC 61308:2005, this section made the following editorial changes.

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

--- Delete foreword international standards;

--- Change "method is a high-frequency dielectric heating device output power" as the test methods "electric devices - Part 9. frequency dielectric Heating output power measuring device ", the English name of the corresponding modification;

--- Increase "and the apparatus includes a high frequency generator for heating material in a capacitor, according to the necessary, even a mechanical device." this Part replaces GB/T 14809-2000 "Methods of measurement frequency dielectric heating equipment output power," compared with the latter's main technical Surgery changes are as follows (listed only part of the project name).

--- Full text of the "standard" to "this part", according to GB/T 1.1-2000 modify formatting such as Chapter 2, Section 3, etc. headline and the appropriate citation;

--- To increase the scope of "bamboo";

Change the original standard "Heat, heat, heat softening and drying process" is "melting, drying, heat sealing, bonding and other thermal processing and pest control Industrial high-frequency dielectric heating apparatus";

--- Equivalent standard adoption, increase the entire contents of "note" of;

--- Deleting "output terminals are easy to access";

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--- Standards adopted by the preparation of terms and their definitions, increase "3.1 A type equipment", "3.2 B type equipment", "3.3 A-type devices Useful output power", "useful output power 3.4 B-type device" and "3.5 plastic heat sealing test electrode" as used herein and definition;

--- Add "4.1 Overview";

--- Mining Standards equivalent number and title, corresponding to modify the original standard of 4.1 to 4.4;

--- Increase the "wet sand load 4.5";

--- Add "5.1 Overview";

--- Mining Standards equivalent number and title, corresponding to modify the original standard 5.5.1, 5.5.2 and 5.4;

--- Increase the "wet sand load 5.5 Law", 5.6 "high-frequency dielectric plastic heat sealing machine output power estimate," "5.7 pairs of B-type equipment Estimated output power";

--- Mining Standards equivalent figure number and title, corresponding to modify the original standard "Fig. 1a), Fig. 1b), Fig. 2";

--- Increase "incandescent lamp load Figure 4 Example", "5 incandescent load structure", "6 plastic heat sealing test electrode." Appendix A of this section is an informative annex.

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 section is drafted. Xi'an Institute Ltd. furnace.

1 Scope and purpose

GB/T 10066 provisions of this part of the determination of the high-frequency dielectric heating apparatus of power output.

This section applies to the natural ambience and atmosphere (for example, an inert gas or vacuum), for such as plastic, wood, rubber, textiles, glass, ceramics, paper, bamboo and food portion of the conductive or non-conductive material is melted, drying, heat sealing, bonding and other pest control and thermal processing industries High-frequency dielectric heating apparatus.

This section refers to the nominal frequency of 1MHz ~ 300MHz, Useful rated output power greater than 50W of high-frequency dielectric heating apparatus.

The main purpose of this section at the time of the electric power supply test, facilitate their compliance with the provisions of 6.4 GB 5959.9-2008 to begging. It basically does not make some kind of high-frequency heating may be applied to meet the user's requirements. Dielectric heating applications is very wide, so these tests any output power is always obtained value should not be used to represent a specific dielectric heating apparatus capable of power consumed, but in some cases, the output value will be used to represent the performance of the device.

For example, the structure of the power required for the furnace and its feed material, the heating temperature, humidity and the relevant electrode systems.

Note: When heating the dielectric parameters over time and/or temperature changes significantly charge, the actual output power values obtained with the standard test strip Different values obtained pieces.

Means the specified band for working in the International Telecommunication Union (ITU), the frequency of the generator is to follow the output circuit of the resonant frequency, which Thus, the output power even in the case of manual tuning of the output circuit, to remain fairly stable in the working cycle. Therefore, in accordance with this section, Test well shows under actual operating conditions of real output power.

Within a specified frequency band of the device working in the International Telecommunication Union (ITU), the frequency generator remained stable, but the resonant frequency of the output circuit it varies with the load change media parameters. Therefore, the value of the average output power than in the work cycle under the test conditions of low to obtain many. The value depends on the time automatic tuning system response.

This section applies to equipment under normal rated conditions of continuous operation.