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NATIONAL STANDARD OF THE
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GB/T 5959.41-2019 / IEC 60519-21:2008

Replacing GB/T 5959.41-2004

Safety in elcctroheating installations -

**Part 41: Particular requirements for resistance heating
equipment - Heating and melting glass equipment**

电热装置的安全 第 41 部分：对电阻加热装置的特殊要求

玻璃加热和熔化装置

(IEC 60519-21:2008, Safety in electroheat installations -

Part 41: Particular requirements for resistance heating equipment -

Heating and melting glass equipment, IDT)

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Foreword

GB/T 5959 has the following 14 parts:

- GB/T 5959.1, Safety in electroheat installations. Part 1: General requirements;
- GB 5959.2, Safety in electroheat installations. Part 2: Particular requirements for arc furnace installations;
- GB 5959.3, Safety in electroheat installations. Part 3: Particular requirements for induction and conduction heating and induction melting installations;
- GB 5959.4, Safety in electroheat installations. Part 4: Particular requirements for safety resistance heating installations;
- GB/T 5959.41, Safety in electroheating installations. Part 41: Particular requirements for resistance heating equipment. Heating and melting glass equipment;
- GB 5959.5, Safety in electroheat installations. Part 5: Particular requirements for plasma installations;
- GB 5959.6, Safety in electroheat installations. Part 6: Specifications for safety in industrial microwave heating equipment;
- GB 5959.7, Safety in electroheat installations. Part 7: Particular requirements for installations with electron guns;
- GB 5959.8, Safety in electroheat installations. Part 8: Particular requirements for electroslog remelting furnaces;
- GB 5959.9, Safety in electroheat installations. Part 9: Particular requirements for high-frequency dielectric heating installations;
- GB/T 5959.10, Safety in electroheating installations. Part 10: Particular requirements for electrical resistance trace heating systems for industrial and commercial application;
- GB/T 5959.11, Safety in electroheat installations. Part 11: Particular requirements for installations using the effect of electromagnetic forces on liquid metals;
- GB/T 5959.12, Safety in electroheat installations. Part 12: Particular requirements for infrared electric heating devices;

- GB/T 5959.13, Safety in electroheat installations. Part 13: particular requirements for electroheat installation with explosive atmosphere.

This Part is the 41st part of GB/T 5959.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009.

This Part replaces GB 5959.41-2004, "Safety in electroheat installations. Part 41: Particular requirements for resistance heating equipment. Heating and melting glass equipment"; compared with GB 5959.41-2004, the main technical changes are as follows:

- Cite GB 5959.1-2005 and GB 5959.4-2008;
- Cite terms and definitions in GB/T 2900.23-2008;
- Change the inspection of avoiding contact with live-parts from at least 6 months to regular inspection (see 16.3.11, 15.3.101 of version 2004).

This Part uses the translation method equivalent to IEC 60519-21:2008, Safety in elcctroheating installations - Part 21: Particular requirements for resistance heating equipment - Heating and melting glass equipment.

The documents of our country that have a consistent correspondence with the international documents that are referenced in this Part are as follows:

- GB/T 16895.21-2011, Low-voltage electrical installations. Part 4-41: Protection for safety. Protection against electric shock (IEC 60364-4-41:2005, IDT)

This Part makes the following editorial changes:

- Change the standard name into "Safety in elcctroheating installations - Part 41: Particular requirements for resistance heating equipment - Heating and melting glass equipment".

This Part was proposed by China Electrical Equipment Industry Association.

This Part shall be under the jurisdiction of the National Technical Committee 121 on Industrial Electro-heat Equipment of Standardization Administration of China (SAC/TC 121).

The drafting organizations of this Part: Xi'an Electric Furnace Institute Co., Ltd., Kunming University of Science and Technology, Xi'an MCC-CISDI Advanced Materials Co., Ltd., National Center for Quality Supervision and Test of Electric Furnace.

Safety in elcctroheating installations -

Part 41: Particular requirements for resistance heating equipment - Heating and melting glass equipment

1 Scope and purpose

The following content replaces Chapter 1 of GB 5959.4-2008:

This Part applies to indirect resistance heating equipment for glass heating and melting that operates in the 1st voltage section and the 2nd voltage section. These special requirements are equally applicable to devices where current flows through the electrodes through direct resistance heating and melting of the heated material.

The purpose of this Part is to specify the safety requirements for indirect and direct resistance heating equipment for glass heating and melting.

Note: The removal of liquid glass or similar material at the extraction point is part of the production process and is not part of the operation of the electric heating device.

This Part also applies to the safety requirements of electrical parts that are combined with electrical heating and other heating methods such as liquid fuel heating.

Due to process reasons, these requirements do not apply to direct resistance heating equipment for GB 5959.3, GB 5959.2 and GB 5959.8.

2 Normative references

This chapter of GB 5959.4-2008 is applicable.

3 Terms and definitions

This chapter of GB 5959.4-2008 is applicable; however, it is supplemented as follows:

Supplement:

3.101 Glass-melting furnace (indirect resistance heating)

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