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

GB/T 42125.2-2024

Replacing GB 4793.6-2008

**Safety requirements for electrical equipment for measurement,
control and laboratory use - Part 2: Particular requirements for
laboratory equipment for the heating of materials**

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 42125 "Safety requirements for electrical equipment for measurement, control and laboratory use". GB/T 42125 has been the following parts have been published.

--- Part 1: General requirements;

- Part 2: Particular requirements for laboratory equipment for material heating;
- Part 3: Particular requirements for refrigeration equipment;
- Part 4: Special requirements for climate and environmental tests and other temperature regulation equipment;
- Part 5: Particular requirements for laboratory centrifuges;
- Part 7: Safety requirements for hand-held and hand-operated probe assemblies for electrical measurement and test;
- Part 10: Particular requirements for insulation resistance measurement and dielectric strength test equipment;
- Part 14: Particular requirements for automatic and semi-automatic equipment for laboratory use for analytical and other purposes;
- Part 17: Particular requirements for equipment used by children in educational institutions;
- Part 18: Particular requirements for control equipment;
- Part 19: Particular requirements for electric control valve actuators.

This document replaces GB 4793.6-2008 "Safety requirements for electrical equipment for measurement, control and laboratory use Part 6: Laboratory material Compared with GB 4793.6-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Added additional instructions for equipment using flammable liquid heat transfer media (5.4.101);
- Added drying time requirements (6.7.2.2.101);
- Added requirements for equipment containing or using flammable liquids (9.5);
- Added cleaning requirements (11.2);
- Added insulation requirements not covered in 6.7 (Appendix K).

This document is equivalent to IEC 61010-2-010:2019 "Safety requirements for electrical equipment for measurement, control and laboratory use Part 2-010 Part 1: Particular requirements for laboratory equipment for heating materials.

The following minimal editorial changes were made to this document.

- In order to coordinate with the existing standards, the name of the document is changed to "Safety requirements for electrical equipment for measurement, control and laboratory use Part 2.

Particular requirements for laboratory equipment for heating materials.

Introduction

GB/T 42125 "Safety requirements for electrical equipment for measurement, control and laboratory use" is planned to consist of 20 parts.

--- Part 1: General requirements. The purpose is to specify the general safety requirements of electrical equipment for measurement, control and laboratory use and their accessories Require.

--- Part 2: Particular requirements for laboratory equipment for material heating. The purpose is to specify the special requirements for laboratory material heating equipment.

Security requirements.

--- Part 3: Particular requirements for refrigeration equipment. The purpose is to specify the special safety requirements for refrigeration equipment used in measurement, control and laboratories Require.

--- Part 4: Special requirements for climate and environmental tests and other temperature regulation equipment. The purpose is to specify climate and environmental tests Special safety requirements for testing and other temperature regulating equipment.

--- Part 5: Particular requirements for laboratory centrifuges. The purpose is to specify special safety requirements for laboratory centrifuges.

--- Part 6: Particular requirements for test and measuring circuits. The purpose is to specify special safety requirements for test and measuring circuits.

--- Part 7: Safety requirements for hand-held and hand-operated probe assemblies for electrical measurement and testing. The purpose is to specify the safety requirements for hand-held and hand-operated probe assemblies.

Safety requirements for head assemblies and related accessories.

--- Part 8: Particular requirements for hand-held and hand-operated current sensors for electrical measurement and testing. The purpose is to specify the requirements for hand-held and hand-operated current sensors.

Special safety requirements for current sensors.

--- Part 9: Particular requirements for household and professional hand-held multimeters capable of measuring mains voltage.

Particular safety requirements for hand-held multimeters for household and professional use for measuring mains supply voltage.

--- Part 10: Particular requirements for insulation resistance measurement and dielectric

strength test equipment. The purpose is to specify the output voltage AC Safety requirements for equipment used for insulation resistance measurement and dielectric strength testing at 50V or DC 120V or above.

--- Part 11: Particular requirements for sterilizers and cleaning and disinfecting equipment for processing medical materials.

Particular safety requirements for sterilizers and washer-disinfectors.

--- Part 12: Particular requirements for laboratory mixing and stirring equipment. The purpose is to specify electric stirring and agitation equipment used for mechanical stirring and agitation.

Particular safety requirements for laboratory equipment and its accessories.

--- Part 13: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization. The purpose is to specify the requirements for laboratory atomic spectrometers with thermal atomization and ionization.

Particular safety requirements for atomic spectrometers for atomization and ionization.

--- Part 14: Particular requirements for automatic and semi-automatic equipment for laboratory analysis and other purposes. The purpose is to specify the Particular safety requirements for automatic and semi-automatic equipment for analytical and other purposes.

--- Part 15: Particular requirements for cabinet X-ray systems. The purpose is to specify special safety requirements for cabinet X-ray systems.

--- Part 16: Particular requirements for in vitro diagnostic (IVD) medical devices. The purpose is to specify the intended use for in vitro diagnostic medical purposes Special requirements for medical devices.

--- Part 17: Particular requirements for equipment used by children in educational institutions. The purpose is to specify the requirements for equipment used by student operators in educational institutions.

Particular safety requirements for equipment and accessories.

--- Part 18: Particular requirements for control equipment. The purpose is to specify the special requirements and related requirements for control equipment used in industrial environments identification test.

--- Part 19: Particular requirements for electric control valve actuators. The purpose is to specify the requirements for electric control valve actuators installed in industrial processes or discrete control Safety requirements for electric control valve actuators and solenoid coils in environments.

--- Part 20: Particular requirements for industrial communication circuits and communication