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

GB/T 44581-2024

**Automatic floor treatment machines for commercial use -
Particular requirements**

商用自主地板处理机 特殊要求
(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 equivalent to IEC 63327:2021 "Particular requirements for commercial autonomous floor treatment machines".

The following minimal editorial changes were made to this document.

--- Deleted the informative statements about other national standards in Chapter 1 of IEC 63327:2021.

1 Scope

This document applies to the safety of electrically powered autonomous floor treatment machines intended for indoor commercial use involving the following uses on floors.

- cleaning;
- scrub;
- Wet or dry dust removal;
- polishing;
- Use of waxing, sealing products and powdered detergents;
- Wash with detergent.

In addition to the applicable requirements of IEC 60335-2-72, the requirements of this document apply to commercial floor treatment machines.

For autonomous floor treatment machines specially designed for wet or dry vacuuming, additional or modified requirements of IEC 60335-2-69 apply.

The machines covered by this document may be operated in automatic or manual mode.

For autonomous floor treatment machines without manual mode, Appendix FF of this document gives the modification requirements.

Autonomous floor treatment machines covered by this document are designed to avoid hazardous contact with persons in the application environment.

Autonomous floor treatment machines may need to operate in close proximity to large numbers of people, such as shopping malls and schools.

In this document "Machine" means an autonomous floor treatment machine.

Contains the following power systems.

---Powered by a rechargeable battery charged by a built-in battery charger or an external battery charger, which can be integrated in the machine circuit or installed on the machine and assembled in the automatic floor treatment machine housing; or by batteries that need to be removed and charged by an external charger powered by;

---Other systems are under development.

This document does not apply to.

---Household vacuum cleaners, water suction cleaning appliances and automatic battery-powered vacuum cleaners (GB/T 4706.7);

---Household floor treatment machines and wet scrubbers (GB/T 4706.57);

---Battery charger (GB/T 4706.18);

---Commercial floor treatment machines (GB/T 4706.86);

--- Commercial spray extraction machine (GB/T 4706.87);

- Road sweeper;
- Machines designed for use on slopes with a gradient exceeding 20%;
- Machines equipped with a power take-off (PTO);
- Machines designed for use in corrosive or explosive environments (such as dust, steam or gas);
- Machines designed for use in vehicles, vessels or aircraft;
- Vacuum cleaners designed to absorb combustible dust;
- Medical devices (GB 9706.1);
- Unmanned industrial trucks and their systems (ISO 3691-4);
- Safety requirements for robots and robotic equipment Personal assistant robots (GB/T 36530);
- Machines with parts extending outside the contact zone of the machine;

NOTE 101: Machine parts operating outside the contact zone may be evaluated differently.