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

GB/T 10058-2023

Replacing GB/T 10058-2009

Specification for electric lifts

电梯技术条件

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1 Scope

GB/T 10058-2023 is the Chinese national standard on specification for electric lifts, in the field of construction materials and building. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 7 September 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2024. Classification: ICS 91.140.90, CCS Q78. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the technical requirements, reliability, test rules, as well as marking, packaging, transportation, storage and technical files for passenger electric lifts and freight electric lifts. This document applies to traction electric lifts with a rated speed not greater than

6.0 m/s and forced electric lifts with a rated speed not greater than

0.63 m/s. For traction electric lifts with rated speeds greater than

6.0 m/s, refer to this document. The non- applicable parts shall be determined through negotiation between the manufacturer and the purchaser. This document does not apply to hydraulic electric lifts, utility electric lifts, household electric lifts, freight-only electric lifts and inclined electric lifts.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 755, Rotating electrical machines -- Rating and performance

GB/T 7024, Terminology of lifts, escalators, passenger conveyors

GB/T 7588.1-2020, Safety rules for the construction and installation of lifts -- Part 1: Passenger and goods passenger lifts

GB/T 7588.2-2020, Safety rules for the construction and installation of lifts -- Part 2: Design rules, calculations, examinations and tests of lift components

GB/T 8903, Steel wire ropes for lifts

GB/T 10059, Electric lifts -- Testing methods

GB/T 10060, Code for installation acceptance of electric lifts

GB/T 14048.1-2012, Low-voltage switchgear and control gear -- Part 1: General rules

GB/T 20645, Specific environmental condition -- Technical requirements of low-

3.2 composite filler weight A variety of materials are mixed in a certain proportion and then filled in a closed or partially closed box. After solidification, a counterweight block with a certain strength is formed. The counterweight block is called a composite filler weight.

3.3 press filler weight Counterweights that are formed from metal materials such as iron filings, particle steel, and color steel tile scraps through high temperature and high pressure.

4.1 Basic requirements

4.1.1 Electric lifts and all their components shall be correctly designed and structurally sound. They shall comply with general technical specifications for mechanical, electrical and building structures.

4.1.2 The materials from which electric lift components are made shall maintain adequate strength over their expected life. Materials harmful to the environment and human health (such as asbestos, etc.) shall not be used.

4.1.3 The entire electric lift machine and parts shall have good maintainability and facilitate inspection and maintenance, so as to ensure normal working condition during its service life.

4.2 Normal usage conditions

4.2.1 The altitude of the installation site does not exceed 1000 m. For electric lifts with an altitude exceeding 1000 m, the operating temperature rise and temperature allowable limits of the driving host shall be corrected according to the requirements of GB/T 755. For electric lifts with an altitude exceeding 2000 m, the selection of low-voltage electrical appliances shall comply with the requirements of GB/T 20645.

4.2.2 The ambient temperature in the hoistway and machine space shall be maintained between 5°C~40°C.

4.2.3 The relative humidity of the air at the installation site shall not exceed 50% when the maximum temperature is 40°C. There can be higher relative humidity at lower temperatures. For example, when the monthly average minimum temperature in the wettest month is 20°C, the monthly average maximum relative humidity in that month can reach 90%. It is necessary to consider the impact of humidity on electrical equipment, including issues such as condensation. Corresponding measures shall be taken.

c) Terminal buffer device. For energy-consuming buffers, there shall be an electrical safety device for checking and resetting. If a reduced-stroke buffer is used, it shall also have the function of monitoring deceleration at the end of the stroke.

d) Protection device when exceeding the upper limit and lower limit working position.

e) Floor door lock device and electrical interlock device: 1) When the electric lift is running normally, the landing door cannot be opened. If a landing door is open, the electric lift cannot start or continue to run (except for leveling, re-leveling and preparatory operations in the unlocking area); 2) Electrical safety devices to verify landing door locking; electrical safety devices to verify landing door closing; emergency unlocking and landing door automatic closing devices.

f) During the closing process of the power-driven automatic door, when people pass through the entrance, the protection device automatically reopens the door.

g) Traction electric lift car upward overspeed protection device.

h) Emergency operating device, including a device that opens the brake of the driving host and a device that moves the car to a nearby landing.

i) Bistable red stop device, that is installed in the pulley room (if any), on the car roof, in the pit, on the inspection operation control device, next to the driving host, and on the emergency and test operation screens. If there is a main switch or other stopping device within 1 m from the driving host or within 1 m from the emergency and test operation