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

GB/T 30559.1-2026

Replacing GB/T 30559.1-2014

**Energy performance of lifts, escalators and moving walks - Part
1: Energy measurement and verification**

电梯、自动扶梯和自动人行道的能量性能 第1部分：能量测量与验证

(English Translation)

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Foreword

Drafting.

This document is Part 1 of GB/T 30559 "Energy Performance of Elevators, Escalators and Moving Walks". GB/T 30559 has been...

The following sections were published.

---Part 1: Energy Measurement and Verification;

---Part 2: Energy Calculation and Classification of Elevators;

---Part 3: Energy calculation and classification of escalators and moving walkways.

This document replaces GB/T 30559.1-2014 "Energy performance of elevators, escalators and moving walkways - Part 1: Energy measurement".

Compared with GB/T 30559.1-2014, the main technical changes in "Verification and Testing" are as follows, except for structural adjustments and editorial modifications.

- a) The measurement range for elevator energy has been changed (see 1.2, 2014 version 1.2);
- b) The measurement range for energy of escalators and moving walkways has been changed (see 1.3, 2014 edition of 1.3);
- c) The term "non-elevator equipment" and its definition were added (see 3.13), and the term "loaded state" was deleted (see 2.9 of the 2014 edition);
- d) A main energy measurement during 30 minutes of standby was added [see 5.2.3g];
- e) An auxiliary energy measurement during 30 minutes of standby mode was added [see 5.2.5g];
- f) The requirement for information on the instrument calibration date in the report has been added (see 7.1).

This document is equivalent to ISO 25745-1:2023 "Energy performance of elevators, escalators and moving walkways - Part 1: Energy measurement".

Quantification and Verification.

The following minimal editorial changes have been made to this document.

---Added notes (see 3.3, 5.1.3, 5.1.4, 5.2.3, 5.2.5, Figure A.1 and Figure A.2);

---Added general information to the report, such as "driving method" (see 7.1).

This document was proposed and is under the jurisdiction of the National Elevator Standardization Technical Committee (SAC/TC196).

Introduction

0.1 In order to address the growing demand for energy conservation in building transportation equipment and to ensure and support the efficient use of energy, my country has established a system to support energy conservation and energy efficiency.

The standard system for energy performance of elevators, escalators and moving walkways, GB/T 30559 "Elevators, Escalators and Moving Walkways"

---Part 1: Energy Measurement and Verification. The aim is to provide methods for measuring the actual energy of elevators, escalators, and moving walkways.

And energy verification methods.

---Part 2: Elevator Energy Calculation and Classification. The aim is to provide methods for estimating elevator energy and to classify energy performance.

Estimation method.

---Part 3: Energy Calculation and Classification of Escalators and Moving Walkways. The purpose is to provide energy calculation and classification for escalators and moving walkways.

Methods for estimating energy and methods for evaluating energy performance classification.

0.2 This document may provide relevant reference for the following stakeholders.

---Building developers and owners who determine and verify building energy consumption;

---Owners and service companies that conduct regular energy verification;

--- Manufacturers, installers, and maintenance companies of elevators, escalators, and moving walkways;

---Consultants and architects involved in determining the specifications for elevators, escalators, and moving walkways.

0.3 Total energy consumption throughout the entire lifecycle of elevators, escalators, and moving walkways includes the energy required for manufacturing, installation, use, and end-of-life disposal.

Energy consumption. The energy consumption assessment and verification process specified in this document only considers the energy consumption caused by the use of elevators, escalators, and moving walkways.

The resulting energy consumption.

Energy performance of elevators, escalators and moving walkways Part 1: Energy Measurement and Verification

1.1 General Provisions

This document stipulates that.

b) Methods for periodic verification of the energy of elevators, escalators and moving

walkways in use.

This document only considers the energy performance of elevators, escalators, and moving walkways during their life cycle.

1.2 Elevator

For elevators, this document does not include the following energy sources, such as.

- a) Shaft lighting;
- b) Heating and cooling equipment and fans in the car;
- c) Computer room lighting;
- d) Heating, ventilation, and air conditioning systems for the computer room;
- e) Non-elevator display systems and security CCTV cameras, etc.;
- f) Non-elevator monitoring systems (e.g., building management systems, etc.);
- g) The impact of elevator group control and allocation on energy;
- h) Non-elevator equipment on the power outlet;
- i) An energy storage system that provides a backup energy source for elevator operation.

1.3 Escalators and Moving Walkways

For escalators and moving walkways, this document does not include the energy required for the following auxiliary equipment, such as.

- a) Lighting other than comb plate lighting, step lighting, and operation indicator lights;
- b) Cooling and heating equipment;
- c) Alarm devices and emergency power supply (battery) devices, etc.

3 Terms and Definitions

The following terms and definitions apply to this document.

auxiliary current

The current flowing through the auxiliary circuit of the auxiliary switch.