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

GB/T 46151-2025

**Electrical requirements for lifts, escalators and moving walks -
Information transmission and control security
(English Translation)**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 8102-20:2022 "Electrical requirements for elevators, escalators and moving walkways - Part 20: Cybersecurity".

The technical differences between this document and ISO 8102-20:2022, and the reasons therefor, are as follows.

---The scope of application has been changed (see Chapter 1, Chapter 1 of ISO 8102-20:2022) to suit my country's national conditions;

---ISO 8100-1:2019 has been replaced by the normatively referenced GB/T 7588.1-2020 (see 3.1, 5.6.2, A.3.9.1~).

A.3.9.3), the degree of consistency between the two documents is modified to adapt to my country's technical conditions;

---The normative reference document GB 16899 (see Chapter 2) has been added to suit my country's national conditions;

---Added abbreviations API, CAPEC, CWE, JTAG, OWASP, and WLAN; removed the abbreviation EUC.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Electrical Requirements for Elevators, Escalators and Moving Walks - Information Transmission and..." Controlling Safety;

---In the introduction and Appendix C, the referenced standards GB/T 35673-2017 and GB/T 42457-2023 have been replaced with the relevant references.

IEC 62443 series standards;

---Corrected the incorrect clause number in Table A.1 of ISO 8102-20:2022;

---In section B.2, ISO/IEC 27005:2018 has been replaced by ISO/IEC 27005:2022;

---GB/T 7588.2-2020 and GB/T 24475-2023 have been added to the references, using informative citations.

GB/T 20900-2007 replaced ISO 14798:2009.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

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

Introduction

0.1 This document was developed in response to market demands and growing awareness of cybersecurity. It represents the latest advancements in operational technology.

The technical standards for cybersecurity are national standards such as GB/T 35673-2017 and GB/T 42457-2023. This document provides information on elevators.

Specific requirements needed when these standards are applied in the industry.

0.2 A fundamental principle of cybersecurity is to establish a sound cybersecurity process lifecycle. This lifecycle needs to include sufficient...

Training, tools, resources, and processes for developing, hardening, and maintaining the resilience of controlled devices (EUCs) against cyberattacks. Employing a lifecycle approach.

The approach to this period is also a fundamental premise for best practices in various

cybersecurity standards and methods.

This document covers the requirements for products and systems related to cybersecurity threats at the following lifecycle stages.

---Product Development (Process and Product Requirements);

---manufacture;

---Install;

---Use and maintenance;

---Retired.

0.3 This document covers EUC product suppliers and system integrators in Figure 2 of GB/T 42457-2023.

This document does not address the asset owners in Figure 2 of GB/T 42457-2023, but it specifies the EUC product suppliers and system assemblies.

The requirements for establishing documentation by the business owner are to allow the asset owner (EUC owner) to implement and maintain the security of the EUC.

Elevators, escalators, and moving walkways Electrical requirements ensure the safety of information transmission and control.

1 Scope

This document specifies the safety requirements for information transmission and control of elevators, escalators, and moving walkways, and provides usage information.

This document applies to EUCs that can connect to external systems (such as building networks, cloud services, or service tools), and whose connections are capable of...

This can be achieved through permanent equipment on site or temporary equipment brought to the site for use during installation, use, maintenance, and decommissioning phases.

This document includes the EUC's interfaces with external systems and services, but does not cover external systems and services beyond those interfaces.

This document does not apply to EUCs installed before the date this document is effective.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this

document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 7588.1-2020 Safety Code for the Manufacture and Installation of Elevators - Part 1: Passenger Elevators and Freight Elevators (ISO 8100-1.

2019 MOD)

Note: There are no technical differences between the content referenced in GB/T 7588.1-2020 and the content referenced in ISO 8100-1:2019.

GB 16899 Safety Code for the Manufacture and Installation of Escalators and Moving Walkways GB/T 35673-2017 Industrial Communication Networks - Network and System Security Requirements and Security Levels (IEC 62443-3-3) 2013IDT) GB/T 40211-2021 Terminology, Concepts and Models for Security of Industrial Communication Networks and Systems (IEC/T S62443-1-1) 2009IDT) GB/T 42456-2023 Security Technical Requirements for Information Security Components of Industrial Automation and Control Systems (IACS) (IEC 62443-4-2.2019IDT) GB/T 42457-2023 Requirements for the Secure Development Lifecycle of Information Security Products for Industrial Automation and Control Systems (IEC 62443-4-1.2018IDT) GB/T 44861-2024 Safety Risk Assessment for Safety System Design of Industrial Automation and Control Systems (IEC 62443-3-2) 2020IDT)

3.1 Terms and Definitions

The following terms are defined in GB/T 7588.1-2020, GB 16899, GB/T 40211-2021 and GB/T 44861-2024.

The definitions apply to this document.

3.1.1

cybersecurity

Measures taken to prevent unauthorized access to or attacks on computers or computer systems.

Note 1: In this document, the control systems of elevators, escalators and moving walkways are considered to be computer systems.