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

GB/T 39673.4-2026

**Home and building electronic systems (HBES) and building automation
and control systems (BACS) - Part 4: General functional safety
requirements for products intended to be integrated in HBES and BACS**

住宅和楼宇电子系统（HBES）及楼宇自动化和控制系统（BACS）第4部分：预
期集成在HBES和BACS中的产品的一般功能安全要求

(English Translation)

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document is part of GB/T 39673 "Residential and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)".

4 parts. GB/T 39673 has published the following parts.

- Part 1: General Requirements;
- Part 2: Environmental Conditions;
- Part 4: General functional safety requirements for products intended to be integrated into HBES and BACS;
- Part 51: EMC Requirements, Conditions and Test Setup;
- Part 52: EMC requirements for HBES and BACS in residential, commercial and light industrial environments;
- Part 53: EMC requirements for HBES and BACS in industrial environments;

--Part 6: Planning and Installation Requirements.

This document is equivalent to IEC 63044-4:2021 "Residential and building electronic systems (HBES) and building automation and control systems".

(BACS) Part 4: General functional safety requirements for products intended to be integrated into HBES and BACS.

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

--Added information describing the degree of consistency between the parts of GB/T 16895 (all parts) and IEC 60364 (all parts).

Material properties are detailed in Appendix NA.

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 by the China Electrical Equipment Industry Association.

This document is under the jurisdiction of the National Technical Committee on Standardization of Electrical Accessories (SAC/TC 67).

1 Scope

This document specifies the general functional safety requirements for products intended to be integrated into HBES and BACS.

In addition, this document defines the functional security requirements for device interfaces intended to connect to the HBES/BACS network. This document does not...

An interface suitable for connecting to other networks.

Note 1: Another example of a network is the dedicated ICT network covered by IEC 62949.

This document does not provide functional safety requirements for safety-related systems.

Note 2: Appendix C provides examples of non-security-related HBES/BACS applications.

This document does not provide requirements regarding data protection and security.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.

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 7289-2017 Reference conditions for failure rate of electrical components and stress model for failure rate transformation (IEC 61709:2011, IDT) Note. There are no technical differences between the content referenced in GB/T 7289-2017 and the content referenced in IEC 61709:2017.

GB/T 16895 (all parts) Low-voltage electrical installations [IEC 60364 (all parts)] Note. The degree of conformity between GB/T 16895 (all parts) and IEC 60364 (all parts) is given in Appendix NA.

GB/T 20438 (all parts) Functional safety of electrical/electronic/programmable electronic safety-related systems [IEC 61508 (all parts)] part) 2010, IDT) GB/T 20438.2-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Electrical/electronic/programmable electronic safety-related systems Requirements for safety-related systems (IEC 61508-2:2010, IDT) GB/T 20438.3-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3: Software requirements (IEC 61508-3) 2010, IDT) GB/T 20438.4-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 4: Definitions and abbreviations (IEC 61508-) 4.2010, IDT) GB/T 20438.5-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 5: Determining safety integrity levels Method Example (IEC 61508-5:2010, IDT) GB/T 20438.6-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 6: GB/T 20438.2 and Application Guidelines for GB/T 20438.3 (IEC 61508-6:2010, IDT) GB/T 20438.7-2017 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 7: Overview of techniques and measures (IEC 61508-7:2010, IDT)