

ICS 29.120.01

CCS K 60



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

GB/T 39673.1-2020

**Home and building electronic systems (HBES) and building
automation and control systems (BACS) - Part 1: General
requirements**

Issued on: December 14, 2020

Implemented on: July 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions, abbreviations	2
4 General requirements	3
5 Expected standard composition	3
6 Overview of HBES/BACS applications and clusters	4
Reference	7
Table 1 Summary of the most relevant application requirements	4
Table 2 HBES/BACS application and service cluster	5

Foreword

GB/T 39673 "Home and Building Electronic System (HBES) and Building Automation and Control System (BACS)" intends to publish the following parts:

- Part 1: General requirements;
- Part 2: Environmental conditions;
- Part 3: Electrical safety requirements;
- Part 4: Functional safety;
- Part 5: EMC requirements;
- Part 51: EMC requirements, conditions and test arrangements;
- Part 52: EMC requirements for HBES and BACS used in residential, commercial and light industrial environments;
- Part 53: EMC requirements for HBES and BACS used in industrial environments;
- Part 6: Planning and installation of HBES:

This part is Part 1 of GB/T 39673:

This section was drafted in accordance with the rules given in GB/T 1:1-2009:

This part uses the redrafting law to amend and adopt IEC 63044-1:2017 "Housing and Building Electronic System (HBES) and Building Automation

And Control System (BACS) Part 1: General Requirements:

The technical differences between this part and IEC 63044-1:2017 and the reasons are as follows:

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments:

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows:

- * Replace IEC 61000-6-1 (see 5:4:3) with GB/T 17799:1 modified to adopt international standards;
- * Replace IEC 61000-6-2 (see 5:4:4) with GB/T 17799:2 which is equivalent to adopting international standards;
- * Replace IEC 63044-3 (see 5:2) with GB/T 39673:3 modified to adopt international standards;
- * Replace IEC 63044-5-1 (see 5:4:2) with GB/T 39673:51 modified to adopt international standards;
- * Replace IEC 63044-5-2 (see 5:4:3) with GB/T 39673:52 modified to adopt international standards;
- * Replace IEC 63044-5-3 (see 5:4:4) with GB/T 39673:53 modified to adopt international standards;

This section has made the following editorial changes:

---According to the relevant regulations of GB/T 1:1-2009, in Chapter 1 "Scope", "This part of GB/T 39673 provides

Terms, definitions, abbreviations and standards for home and building electronic systems (HBES) and building automation and control systems (BACS)

Overview of structure, applications, and clusters: ";

--- According to the relevant provisions of GB/T 1:1-2009, delete the definition of "interoperability" that is not used in the text:

This part was proposed by China Electrical Equipment Industry Association:

This part is under the jurisdiction of the National Electrical Accessories Standardization Technical Committee (SAC/TC67):

Drafting organizations of this section: China Electrical Equipment Research Institute Co., Ltd., Feidiao Electric Group Co., Ltd., Hangzhou Hongyan Electric Co., Ltd:

Company, Shanghai Liangxin Intelligent Electric Co., Ltd., Jiangsu Tongling Technology Co., Ltd., Guangdong Midea HVAC Equipment Co., Ltd., Beijing ABB Low

Piezoelectric Apparatus Co., Ltd., Simon Electric (China) Co., Ltd., Zhejiang Youmao Technology Co., Ltd., Guangdong Xinruan Technology Co., Ltd., Gree Zhuhai

Electric Appliance Co., Ltd., the Fifth Institute of Electronics of the Ministry of Industry and Information Technology, Zhongzheng Shangdong (Shanghai) Testing Technology Co., Ltd., Weikai Testing Technology

Technology Co., Ltd., Bull Group Co., Ltd., Xiamen Meike Security Technology Co., Ltd., Xiamen David Technology Co., Ltd., Xiamen Keli

Electronics Co., Ltd., Dongguan Ruijing Electrical Technology Co., Ltd., Xiamen Kexin Electronics Co., Ltd., Xiamen Sanxing Electronics Co., Ltd., Zhejiang Xiemei

Technology Co., Ltd., Xiamen Wanming Electronics Co., Ltd., Shandong Yaosi Intelligent Technology Co., Ltd., Xiamen Kunjin Electronic Technology Co., Ltd., Zhejiang

Delixi International Electrical Co., Ltd., Huizhou Xidun Industrial Development Co., Ltd., Jiangxi Gumei New Testing Technology Co., Ltd:

1 Scope

This part of GB/T 39673 specifies residential and building electronic systems (HBES) and building automation and control systems

(BACS) terms, definitions and abbreviations, the structure of the series of standards, an overview of applications and clusters, and regulations for residential and building electricity

Sub/building automation and control system and home and building electronics/building automation and control products (hereinafter referred to as: products)

Claim:

This section applies to all residential and building electronic systems (HBES) and building automation and control systems (BACS):

This section applies to (but not limited to):

---Operation station and other man-machine interface equipment;

---Management function equipment;

---Control equipment, automation stations and application-specific controllers;

---Field equipment and its interface;

--- Wiring and interconnection of equipment:

The above is used in a dedicated HBES/BACS network:

This section provides an overview of the GB/T 39673 series of standards:

In order to be able to integrate a wide range of applications, the GB/T 39673 series of standards cover:

- Electrical Safety;
- Functional safety;
- Environmental conditions;
- EMC requirements;
- Installation, wiring rules and topology:

All parts of GB/T 39673 constitute the product series standard:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB/T 17799:1 General standard for electromagnetic compatibility Immunity in residential, commercial and light industrial environments (GB/T 17799:1-

2017, IEC 61000-6-1:2005, MOD)

GB/T 17799:2 Electromagnetic compatibility general standard industrial environment immunity test (GB/T 17799:2-2003,

IEC 61000-6-2:1999, IDT)

GB/T 39673:3 Home and Building Electronic System (HBES) and Building Automation and Control System (BACS) Part 3: Electricity

Gas safety requirements (GB/T 39673:3-2020, IEC 63044-3:2017, MOD)

GB/T 39673:51 Housing and Building Electronic System (HBES) and Building Automation and Control System (BACS) Part 51:

EMC requirements, conditions and test arrangements (GB/T 39673:51-2020, IEC 63044-5-1:2017, MOD)