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

GB/T 39673.53-2020

**Home and building electronic systems (HBES) and building
automation and systems (BACS) - Part 53: EMC requirements
for HBFS/BAGS used in environments**

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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 53 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 63044-5-3:2017 "Housing and Building Electronic System (HBES) and Building Automation

And Control System (BACS) Part 5-3: EMC requirements for HBES and BACS used in industrial environments":

The technical differences between this part and IEC 63044-5-3:2017 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 61000-4-4 with GB/T 17626:4 which is equivalent to adopting international standards;
- * Replace IEC 61000-4-5 with GB/T 17626:5 which is equivalent to adopting international standards;
- * Replace IEC 61000-4-6 with GB/T 17626:6 which is equivalent to adopting international standards;
- * Replace IEC 61000-6-2 with GB/T 17799:2 which is equivalent to adopting international standards;
- * Replace IEC 61000-6-4 with GB 17799:4 which is equivalent to the international standard:

This section has made the following editorial changes:

---According to the relevant regulations of GB/T 1:1-2009, in accordance with the national standard naming rules, the standard name is changed to "House and Building Electronics

System (HBES) and Building Automation and Control System (BACS) Part 53: HBES and building automation and control systems used in industrial environments

EMC requirements of BACS";

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

HBES for home and building electronic systems (HBES) and building automation and control systems (BACS) for industrial environments

And BACS EMC requirements";

---According to the relevant regulations of GB/T 1:1-2009, in Chapter 1 "Scope", "This part applies to residential and building electronics

System (HBES) and Building Automation and Control System (BACS)":

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: Weikai Testing Technology Co., Ltd., Feidiao Electric Group Co., Ltd., Jiangsu Tongling Technology Co., Ltd., Xiamen Fu

Lan Home Appliance Technology Co., Ltd., Hangzhou Hongyan Electric Co., Ltd., China National Electrical Equipment Research Institute Co., Ltd., Simon Electric (China) have Co., Ltd., Zhejiang Youmao Technology Co., Ltd., Guangdong Yanfei Technology Co., Ltd., Guangdong Xinruan Technology Co., Ltd., Zhuhai Gree Electric Co., Ltd:

Co., Ltd., Shandong Yaosi Intelligent Technology Co., Ltd., Dongguan Zhiheng Household Appliance Technology Co., Ltd., Zhejiang Xiemei Technology Co., Ltd., Zhejiang

Delixi International Electrical Co., Ltd., Jiangxi Gumei New Detection Technology Co., Ltd:

Introduction

GB/T 39673 involves the development and testing of home and building electronic systems (HBES) and building automation and control systems (BACS):

GB/T 39673:51, GB/T 39673:52 and GB/T 39673:53 ensure that the electromagnetic compatibility requirements of HBES/BACS equipment meet

To the common level:

And Control System (BACS) Part 53: Used in Industry

EMC requirements of HBES and BACS in the environment

1 Scope

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

EMC requirements for HBES and BACS used in industrial environments:

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

Chapter 1 of GB/T 39673:51-2020 is applicable after the following modifications:

Replace paragraph 6 with the following:

According to the definition given in GB/T 17799:2, this section specifies the EMC requirements for the installation of HBES/BACS in an industrial environment:

Note: The industrial environment includes office areas that may exist in industrial sites:

Industrial automation systems are not in this scope:

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 17626:4 Electromagnetic compatibility test and measurement technology Electrical fast transient pulse group immunity test (GB/T 17626:4-

2018, IEC 61000-4-4:2012, IDT)

GB/T 17626:5 Electromagnetic compatibility test and measurement technology surge (impact) immunity test (GB/T 17626:5-2019,

IEC 61000-4-5:2014, IDT)

GB/T 17626:6 Electromagnetic compatibility test and measurement technology Radio frequency field induced conducted disturbance immunity (GB/T 17626:6-

2017, IEC 61000-4-6:2013, IDT)

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

IEC 61000-6-2:1999, IDT)

GB 17799:4 Electromagnetic compatibility general standard industrial environment emission (GB 17799:4-2012, IEC 61000-6-4:

2011, IDT)

GB/T 39673:51-2020 Home and Building Electronic System (HBES) and Building Automation and Control System (BACS) No: 5-1

Part: EMC requirements, conditions and test arrangements (IEC 63044-5-1:2017, MOD)

3 Terms and definitions, abbreviations

The terms, definitions and abbreviations defined in GB/T 39673:51-2020 apply to this document:

ISO and IEC keep the terminology database used for standardization at the following address:

---IEC Electropedia: <http://www.electropedia.org>;

---ISO online browsing platform: <http://www.iso.org/obp>: