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

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**Home and building electronic systems(HBES) and building
automation and control systems(BACS) - Part 6: Requirements
for planning and installation
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 6 of GB/T 39673 "Residential and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)" GB/T 39673 has published the following parts.

- Part 1: General requirements;
- Part 3: Electrical safety requirements;
- Part 51: EMC requirements, conditions and test arrangements;
- Part 52: EMC requirements for HBES and BACS for residential, commercial and light industrial environments;
- Part 53: EMC requirements for HBES and BACS for use in industrial environments;
- Part 6: Planning and installation requirements.

This document is equivalent to IEC 63044-6:2021 "Housing and building electronic systems (HBES) and building automation and control systems (BACS) Part 6: Planning and installation requirements.

Introduction

ISO/IEC 14763-2 is a standard for cabling used in information and communication technology (ICT) and broadcasting and communication technology (BCT) applications.

Specific standards for ICT and BCT cabling installation and planning.

This document covers the installation of HBES/BACS networks in addition to the safety requirements for electrical installations specified in the IEC 60364 series of standards.

and planning requirements.

Specific requirements for installation and planning include.

- Cabling infrastructure;
- Coexist with power wiring;
- Sensor recommendations.

This document also considers wireless systems. The planning of the cable backbone for wireless systems is not as complex as planning a complete wired network path and power cabling.

This document also provides additional clauses to ensure coverage and reliability.

GB/T 39673 "Residential and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)" aims to standardize to meet the requirements of HBES/BACS and ensure the safety and reliability of the system, it is planned to consist of the following parts.

- Part 1: General requirements. The purpose is to standardize residential and building electronic systems (HBES) and building automation and control systems General requirements such as general requirements of (BACS), application and cluster overview.
- Part 3: Electrical safety requirements. The purpose is to standardize residential and building electronic systems (HBES) and building automation and control Technical requirements for overvoltage category, pollution degree, electrical safety, installation, etc. of the system (BACS).
- Part 51: EMC requirements, conditions and test arrangements. The purpose is to standardize residential and building electronic systems (HBES) and buildings Technical requirements such as EMC requirements, conditions and test arrangements for BACS.
- Part 52: EMC requirements for HBES and BACS for residential, commercial and light industrial environments. The purpose is to standardize General requirements, performance criteria, standard tests for EMC of HBES and BACS for residential, commercial and light industrial environments Conditions and EMC requirements and other technical requirements.

--- Part 53: EMC requirements for HBES and BACS used in industrial environments. The purpose is to standardize the EMC requirements for HBES and BACS used in industrial environments.

Technical requirements for EMC of HBES and BACS, including general requirements, performance criteria, standard test conditions and EMC requirements.

--- Part 6: Planning and installation requirements. The purpose is to standardize residential and building electronic systems (HBES) and building automation and control Residential/building network models and general requirements, infrastructure requirements, cabling requirements, Technical requirements such as electrical safety and functional safety, electromagnetic compatibility (EMC) requirements, grounding and shielding requirements, fire prevention and fire resistance requirements, etc.

This document will help regulate the planning and installation of Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS).

to meet the installation requirements, promote the implementation of residential and building electronic systems (HBES) and building automation and control systems (BACS), and improve the the technology level of the Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) industries.

Building Automation and Control Systems (BACS) Part 6: Planning and installation requirements

1 Scope

This document specifies Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) and their supporting infrastructure.

planning and installation requirements.

This document also considers HBES/BACS for radio frequency (RF).

Safety requirements for home and building electronic systems (HBES) and building automation and control systems (BACS) and their supporting infrastructure Specified by IEC 60364 (all parts).

Network equipment of Information and Communication Technology (ICT) and Broadcasting and Communication Technology (BCT) are typical interfaces of HBES/BACS.

ISO/IEC 14763-2 covers the requirements for ICT and BCT network installations.

This document does not include support for HBES/BACS, including.

---optical fiber;

---Power lines;