

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Home and building electronic systems (HBES) and building automation and control systems (BACS) –  
Part 5-1: EMC requirements, conditions and test set-up**

**Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) et systèmes de gestion technique du bâtiment (SGTB) –  
Partie 5-1: CEM Exigences générales, condition et montage d'essais**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### HOME AND BUILDING ELECTRONIC SYSTEMS (HBES) AND BUILDING AUTOMATION AND CONTROL SYSTEMS (BACS) –

#### Part 5-1: EMC requirements, conditions and test set-up

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**IEC 63044-5-1 edition 1.1 contains the first edition (2017-01) [documents 23/736/CDV and 23/748/RVC] and its amendment 1 (2022-06) [documents 23/1001/FDIS and 23/1007/RVD].**

**In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.**

International Standard IEC 63044-5-1 has been prepared by IEC technical committee 23: Electrical accessories.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 63044 series, published under the general title *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific publication. At this date, the publication will be

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## INTRODUCTION

The IEC 63044 series deals with developing and testing Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS).

The IEC 63044-5 series ensures a common level of EMC requirements for HBES/BACS devices.

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# HOME AND BUILDING ELECTRONIC SYSTEMS (HBES) AND BUILDING AUTOMATION AND CONTROL SYSTEMS (BACS) –

## Part 5-1: EMC requirements, conditions and test set-up

### 1 Scope

~~This part of IEC 63044 is a product family standard that sets the minimum level of EMC performance for the HBES/BACS network in addition to the product EMC standards for HBES/BACS devices.~~

~~It also applies to devices used within an HBES/BACS network for which no specific HBES/BACS product EMC standard exists.~~

This product family standard specifies the EMC requirements for HBES/BACS devices.

In addition, it defines EMC requirements for the interface of equipment intended to be connected to an HBES/BACS network. It does not apply to interfaces to other networks.

NOTE An example of other networks is a dedicated ICT network covered by ~~CISPR 22 and 23~~ CISPR 32.

This document provides general performance requirements, standard test conditions and test set-ups.

~~This document is applicable (but not limited) to~~

- ~~— operator stations and other human-system interface devices,~~
- ~~— devices for management functions,~~
- ~~— control devices, automation stations and application-specific controllers,~~
- ~~— field devices and their interfaces,~~
- ~~— cabling and interconnection of devices,~~

~~used within a dedicated HBES/BACS network.~~

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61000-3-2, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)*

IEC 61000-3-3, *Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection*

IEC 61000-4-2, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*