

**KODU- JA HOONEELEKTROONIKASÜSTEEMID NING  
HOONE AUTOMAATIKA- JA JUHTIMISSÜSTEEMID.  
OSA 5-1: ELEKTROMAGNETILISE ÜHILDUVUSE NÕUDED,  
TINGIMUSED JA KATSETAMISVIISID**

**Home and Building Electronic Systems (HBES) and  
Building Automation and Control Systems (BACS) -  
Part 5-1: EMC requirements, conditions and test set-up  
(IEC 63044-5-1:2017 +  
IEC 63044-5-1:2017/AMD1:2022)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN IEC 63044-5-1:2019+A1:2024 sisaldab Euroopa standardi EN IEC 63044-5-1:2019 ja selle muudatuse A1:2024 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 63044-5-1:2019+A1:2024 consists of the English text of the European standard EN IEC 63044-5-1:2019 and its amendment A1:2024.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.11.2019, muudatus A1 08.11.2024.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.  Date of Availability of the European standard is 01.11.2019, for A1 08.11.2024.
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ICS 29.120.01; 29.120.99

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EUROPEAN STANDARD

**EN IEC 63044-5-1+ A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019, November 2024

ICS 29.120.01; 29.120.99

Supersedes EN 50491-5-1:2010 and all of its amendments and corrigenda (if any)

English Version

**Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-1: EMC requirements, conditions and test set-up (IEC 63044-5-1:2017 + IEC 63044-5-1:2017/AMD1:2022)**

Systèmes Electroniques 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 (IEC 63044-5-1:2017 + IEC 63044-5-1:2017/AMD1:2022)

Allgemeine Anforderungen an die Elektrische Systemtechnik für Heim und Gebäude (ESHG) und an Systeme der Gebäudeautomation (GA) - Teil 5-1: EMV-Anforderungen, Bedingungen und Prüfungen (IEC 63044-5-1:2017 + IEC 63044-5-1:2017/AMD1:2022)

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## European foreword

The text of document 23/736/CDV, future edition 1 of IEC 63044-5-1, prepared by IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63044-5-1:2019.

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- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-05-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-11-01

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60669-2-1	NOTE	Harmonized as EN 60669-2-1.
IEC 60669-2-5	NOTE	Harmonized as EN 60669-2-5.
IEC 60730 Series	NOTE	Harmonized as EN 60730 Series.
IEC 62041	NOTE	Harmonized as EN 62041.
IEC 60669-2-5	NOTE	Harmonized as EN 60669-2-5.
CISPR 16 Series	NOTE	Harmonized as EN 55016 Series.

## **A1** Amendment A1 European foreword

The text of document 23/1001/FDIS, future edition 1 of IEC 63044-5-1/AMD1, prepared by TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63044-5-1:2019/A1:2024.

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# 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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IEC 63044-5-1

Edition 1.1 2022-06  
CONSOLIDATED VERSION

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Home and building electronic systems (HBES) and building automation and control systems (BACS) –  
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Partie 5-1: CEM Exigences générales, condition et montage d'essais**

INTERNATIONAL  
ELECTROTECHNICAL  
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INTERNATIONALE

ICS 29.120.01; 29.120.99

ISBN 978-2-8322-3932-2

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## CONTENTS

FOREWORD.....	3
<b>A1</b> Amendment A1 FOREWORD <b>A1</b> .....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references.....	8
3 Terms, definitions and abbreviated terms .....	9
3.1 Terms and definitions .....	9
3.2 Abbreviated terms .....	11
4 General requirements .....	11
5 Performance criteria .....	11
5.1 General performance criteria .....	11
5.2 <b>A1</b> Specific performance criteria <b>A1</b> .....	11
<b>A1</b> 5.2.1 Performance criterion A <b>A1</b> .....	11
<b>A1</b> 5.2.2 <b>A1</b> Performance criterion B .....	12
<b>A1</b> 5.2.3 <b>A1</b> Performance criterion C .....	12
6 Standard test conditions .....	12
6.1 General.....	12
6.2 Immunity .....	13
6.2.1 Electrostatic discharge (ESD) .....	13
6.2.2 RF fields .....	13
6.2.3 Fast transients (bursts) .....	14
6.2.4 Surge .....	14
6.2.5 RF voltage .....	14
6.2.6 Power frequency magnetic fields .....	14
6.2.7 Voltage dips and interruptions .....	14
6.3 Emission .....	14
6.3.1 General .....	14
6.3.2 Conducted emission.....	15
6.3.3 Radiated emission .....	15
Annex A (informative) Additional information for fast transients (burst) test set-up.....	16
Annex B (informative) Test set-ups.....	17
B.1 General.....	17
B.2 Test set-up for conducted immunity tests .....	17
B.3 Test set-up for ESD.....	18
B.4 Test set-up for conducted emission tests .....	18
B.5 Test set-up for radiated (immunity and emission) tests .....	18
Annex ZA (normative) Normative references to international publications with their corresponding European publications .....	21
Bibliography .....	23
<b>A1</b> Figure 1 – EUT ports <b>A1</b> .....	10
Figure B.1 – Test set-up for conducted immunity tests .....	18
Figure B.2 – Set-up for radiated tests .....	19

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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CDV	Report on voting
23/736/CDV	23/748/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

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Amendment 1 to IEC 63044-5-1:2017 has been prepared by IEC technical committee 23: Electrical accessories.

The text of this Amendment is based on the following documents:

Draft	Report on voting
23/1001/FDIS	23/1007/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications/](http://www.iec.ch/standardsdev/publications/).

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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

<sup>A1</sup> This product family standard specifies the EMC requirements for HBES/BACS devices. <sup>A1</sup>

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 <sup>A1</sup> CISPR 32 <sup>A1</sup>.

<sup>A1</sup> This document provides general performance requirements, standard test conditions and test set-ups. <sup>A1</sup>

<sup>A1</sup> *deleted text* <sup>A1</sup>

### 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*

IEC 61000-4-3, *Electromagnetic compatibility (EMC) – Part 4-3 : Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61000-4-4, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

IEC 61000-4-5, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61000-4-8, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test*

IEC 61000-4-11, *Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests*

IEC 63044-1, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 1: General requirements*

IEC 63044-3, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 3: Electrical safety requirements*

CISPR 22, *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement*

CISPR 32, *Electromagnetic compatibility of multimedia equipment – Emission requirements*

### **3 Terms, definitions and abbreviated terms**

#### **3.1 Terms and definitions**

For the purposes of this document, the terms and definitions given in IEC 63044-1 and IEC 63044-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### **3.1.1**

##### **port**

particular interface of the specified device with the external electromagnetic environment

Note 1 to entry: See Figure 1.