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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/21

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August 2021

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Supersedes EN 50491-6-1:2014 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 6: Requirements
for planning and installation
(IEC 63044-6:2021)

Systèmes électroniques pour les foyers domestiques et les
bâtiments (HBES) et systèmes de gestion technique du
bâtiment (SGTB) - Partie 6: Exigences de planification et
d'installation
(IEC 63044-6:2021)

Allgemeine Anforderungen an die Elektrische
Systemtechnik für Heim und Gebäude (ESHG) und an
Systeme der Gebäudeautomation (GA) - Teil 6:
Anforderungen für Planung und Installation
(IEC 63044-6:2021)

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Europäisches Komitee für Elektrotechnische Normung

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EN IEC 63044-6:2021 (E)**European foreword**

The text of document 23/972/FDIS, future edition 1 of IEC 63044-6, prepared by IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63044-6:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-05-03 level by publication of an identical national standard or by endorsement
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60364-5-52 NOTE Harmonized as HD 60364-5-52

IEC 60364-7-716¹ NOTE Harmonized as HD 60364-7-716²

IEC 60670-1 NOTE Harmonized as EN IEC 60670-1

IEC 60715 NOTE Harmonized as EN 60715

IEC 63044-5-1 NOTE Harmonized as EN IEC 63044-5-1

IEC 63044-5-2 NOTE Harmonized as EN IEC 63044-5-2

¹ To be published. Stage at the time of publication: IEC CDV 60364-7-716:2021.

² To be published. Stage at the time of publication: prHD 60364-7-716:2020.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60364-4-41	-	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	-
IEC 60364-4-44	-	Low-voltage electrical installations - Part 4-44: Protection for safety - Protection against voltage disturbances and electromagnetic disturbances	HD 60364-4-442	-
IEC 60364-5-54	-	Low-voltage electrical installations - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors	HD 60364-5-54	-
IEC 61386-24	-	Conduit systems for cable management - Part 24: Particular requirements - Conduit systems buried underground	EN 61386-24	-
IEC 63044-1	-	Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 1: General requirements	EN 63044-1	-
IEC 63044-3	-	Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 3: Electrical safety requirements	EN IEC 63044-3	-
IEC 63044-4	-	Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 4: General functional safety requirements for products intended to be integrated in HBES and BACS	-EN IEC 63044-4	-
IEC 63044-5	series	Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5: EMC requirements	EN IEC 63044-5	series

EN IEC 63044-6:2021 (E)

ISO/IEC 11801-1	-	Information technology - Generic cabling for customer premises - Part 1: General requirements	-	-
ISO/IEC 14763-2	-	Information technology - Implementation and operation of customer premises cabling - Part 2: Planning and installation	-	-



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INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

**Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) et systèmes de gestion technique du bâtiment (SGTB) –
Partie 6: Exigences de planification et d'installation**

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



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Partie 6: Exigences de planification et d'installation**

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms, definitions and abbreviated terms	8
3.1 Terms and definitions.....	8
3.2 Abbreviated terms.....	9
4 Home/building networks.....	9
5 Home/building network model and general requirements	10
6 Infrastructure requirements.....	11
6.1 Infrastructure requirements for wired HBES/BACS	11
6.1.1 Installation spaces for wired HBES/BACS.....	11
6.1.2 Cohabitation of HBES/BACS and power cables	17
6.1.3 Infrastructure requirements for outdoor wired HBES/BACS	19
6.2 Infrastructure requirements for RF HBES/BACS.....	20
7 Cable for HBES/BACS.....	21
8 Electrical safety and functional safety.....	21
8.1 Electrical safety	21
8.2 Functional safety	22
9 EMC	22
10 Earthing and bounding.....	22
11 Fire reaction and resistance requirements	22
12 Environmental aspects	22
13 Installation documentation	22
Annex A (informative) Guidelines on HBES/BACS installation in existing buildings	23
Annex B (informative) Installation guidelines for typical HBES/BACS applications.....	24
B.1 General.....	24
B.2 Installation guidelines	24
B.2.1 Lighting and shutter control	24
B.2.2 Temperature control	24
B.2.3 Intrusion and technical alarm detection.....	26
Annex C (informative) Administration and documentation.....	32
C.1 Installation documentation	32
C.2 Instructions for use	32
C.3 Installer manual	32
Annex D (informative) Inspection and tests.....	34
D.1 General.....	34
D.2 HBES/BACS operation.....	34
D.3 Checks record.....	34
D.4 HBES/BACS Installation Inspection Schedule	36
Annex E (informative) Applications and clusters of services for HBES/BACS	38
Bibliography.....	39

Figure 1 – General topology of home/building network showing ICT, BCT, HBES/BACS networks	10
Figure 2 – Installation spaces	12
Figure 3 – Infrastructure for buildings	12
Figure 4 – Horizontal infrastructure (floor distribution).....	13
Figure 5 – Example of infrastructure for ICT and BCT cabling for a flat	14
Figure 6 – Example of infrastructure for HBES network for a flat.....	15
Figure 7 – Example of allocation of installation spaces (IS5, IS6).....	15
Figure 8 – Indicative installation height for the most common HBES/BACS devices	17
Figure 9 – Underground pathways	19
Figure 10 – Depth of underground pathways.....	19
Figure 11 – Example of pathway planning to guarantee the respect of minimum bending radii (R): 0,5 m if no related information is provided by the cable manufacturer	20
Figure 12 – Example of RF HBES/BACS with components supplied with power cables and batteries or energy harvesting	21
Figure B.1 – Zone temperature control concept.....	25
Figure B.2 – Recommendations on temperature sensor positioning	25
Figure B.3 – Example of home cabinet for heating flow control valves	26
Figure B.4 – Examples of external detecting sensors (1 of 2)	27
Figure B.5 – Examples of internal detecting sensors and basic installation rules.....	29
Figure B.6 – Examples of common mistakes in positioning internal sensors.....	30
Figure B.7 – Example of flooding detection	31
Table 1 – EMC requirements for the cohabitation of the HBES/BACS and power cable	18
Table 2 – Distances between pulling boxes versus type of cables.....	20
Table E.1 – Applications and clusters of services for HBES/BACS	38

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOME AND BUILDING ELECTRONIC SYSTEMS (HBES) AND
BUILDING AUTOMATION AND CONTROL SYSTEMS (BACS) –****Part 6: Requirements for planning and installation**

FOREWORD

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IEC 63044-6 has been prepared by IEC technical committee 23: Electrical accessories. It is an International Standard.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
23/972/FDIS	23/974/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 International Standard 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. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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 this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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INTRODUCTION

A HBES/BACS network is part of the home/building network, which includes cabling for information and communication technology (ICT) and broadcast communication technology (BCT) applications. ISO/IEC 14763-2 is the specific standard for ICT and BCT cabling installation and planning.

This document covers installation and planning requirements specific to a HBES/BACS network in addition to safety requirements for electrical installations included in the IEC 60364 series.

Installation and planning specific requirements include:

- infrastructures for cabling,
- coexistence with electric wiring,
- hints for sensors.

Wireless systems are also considered. Planning the cabled backbone for wireless systems is less complex compared to a full cabled network pathway, power supply cabling. Additional provisions are provided to guarantee coverage and reliability.

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

Part 6: Requirements for planning and installation

1 Scope

This document specifies the requirements for planning and installation of HBES/BACS and the supporting infrastructure.

Radio frequency (RF) HBES/BACS are also considered.

Safety requirements are covered by IEC 60364 (all parts).

Information and communication technology (ICT) and broadcasting and communication technology (BCT) network installations are typically interfaced with HBES/BACS.

The requirements for ICT and BCT network installations are covered by ISO/IEC 14763-2.

This document does not cover HBES/BACS implementation with:

- optical fibre,
- power lines,
- power over Ethernet (PoE).

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 60364-4-41, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-44, *Low-voltage electrical installations – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances*

IEC 60364-5-54, *Low-voltage electrical installations – Part 5-54: Selection and erection of electrical equipment – Earthing arrangements and protective conductors*

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

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

IEC 63044-4, *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 4: General functional safety requirements for products intended to be integrated in HBES and BACS*

IEC 63044-5 (all parts), *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 5: EMC requirements*

IEC 61386-24, *Conduit systems for cable management – Part 24: Particular requirements – Conduit systems buried underground*

ISO/IEC 11801-1, *Information technology – Generic cabling for customer premises – Part 1: General requirements*

ISO/IEC 14763-2, *Information technology – Implementation and operation of customer premises cabling – Part 2: Planning and installation*

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