

Open data communication in building automation,
controls and building management - Home and
building electronic system - Part 1: Product and system
requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13321-1:2021 sisaldab Euroopa standardi EN 13321-1:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 13321-1:2021 consists of the English text of the European standard EN 13321-1:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.03.2021.	Date of Availability of the European standard is 03.03.2021.
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English Version

Open data communication in building automation, controls
and building management - Home and building electronic
system - Part 1: Product and system requirements

Réseau ouvert de communication de données pour
l'automatisation, la régulation et la gestion technique
du bâtiment - Systèmes électroniques pour la maison
et le bâtiment - Partie 1 : Spécification des produits et
des systèmes

Offene Datenkommunikation für die
Gebäudeautomation und Gebäudemanagement -
Elektrische Systemtechnik für Heim und Gebäude - Teil
1: Produkt- und Systemanforderungen

This European Standard was approved by CEN on 18 January 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 13321-1:2021) has been prepared by Technical Committee CEN/TC 247 “Building Automation, Controls and Building Management”, the secretariat of which is held by SNV.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13321-1:2012.

Compared to the previous edition (EN 13321-1:2012), the following changes have been made:

- a) Clause 2 “Normative references” has been revised;
- b) references to the EN 50090 series have been updated;
- c) references to the EN 50491 series have been updated;
- d) the withdrawn EN 50090-2-2 standard has been deleted;
- e) all previous Annexes have been deleted.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The permanent objective of CENELEC/TC 205 is to prepare standards for all aspects of Home and Building Electronic Systems (HBES) in relation to the Information Society. Such HBES standards ensure the integration of a wide spectrum of control applications and the control and management aspects of other applications in and around homes and buildings, including the gateways to different transmission media and public networks. Moreover, they take all matters of Electromagnetic Compatibility (EMC) and electrical and functional safety into account. Hence, they are the pre-condition that conforming products interwork and are installer friendly to facilitate the system designers' and installers' task of providing the necessary networks according to their costumers service needs.

Extending these standardized Home and Building Electronic Systems (HBES) requirements to Building Automation and Control System Application and Building Management (BACS) generates important synergies in functionality and further enhances the economy of scale in this growing, open multivendor market of interoperable BACS products.

This document is intended for use by all involved in design, manufacture, engineering, installation and commissioning activities.

Moreover, and in line with the EU's co-regulatory view of European standardization, this document supports the European objectives and helps users comply with important EU Directives such as the Construction Products Regulation and the Energy Performance of Buildings Directive.

Aspects such as environmental conditions/external influences, electrical safety, EMC, etc. also used to be covered by EN 50090-2-2, which is superseded by the now available EN 50491 series. The latter European Standards series was jointly developed by CENELEC/TC 205 and CEN/TC 247 and also includes aspects like functional safety in normal use. The EN 50491 series applies, together with the relevant product standard for devices, if applicable.

1 Scope

This document specifies, as for Home or Building Electronic Systems (HBES) for the domain of Building Automation and Control System Application and Building Management (BACS), common rules for a class of multi-application bus systems where the functions are decentralised and linked through a common communication process. This document specifies the basic requirements for products and systems. The requirements can also apply to the distributed functions of any equipment connected in a home or building control system if no specific standard exists for this equipment or system.

Due to its reference to the EN 50090 series, this document establishes requirements for the BACS area in relation to Architecture and Hardware and Application and Communication of systems based on HBES amongst other areas, and specifies the basic requirements for interoperability (between products and systems).

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.

EN 50090 (all parts), *Home and Building Electronic Systems (HBES)*

EN 50491-2, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 2: Environmental conditions*

EN 50491-4-1, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 4-1: General functional safety requirements for products intended to be integrated in Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)*

EN 50491-5-1, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-1: EMC requirements, conditions and test set-up*

EN 50491-5-2, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment*

EN 50491-5-3, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-3: EMC requirements for HBES/BACS used in industry environment*

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

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

3 Terms and definitions

No terms and definitions are listed in this document.

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 <https://www.iso.org/obp>