

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

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13321-1:2006 sisaldab Euroopa standardi EN 13321-1:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13321-1:2006 consists of the English text of the European standard EN 13321-1:2006.</p> <p>This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>As for Home or Building Electronic Systems (HBES) this resulting standard provides 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 decentralized and linked through a common communication process.</p>	<p>Scope:</p> <p>As for Home or Building Electronic Systems (HBES) this resulting standard provides 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 decentralized and linked through a common communication process.</p>
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ICS 35.240.99, 91.120

Võtmesõnad:

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 techniques du
bâtiment - Systèmes électroniques pour les foyers
domestiques et les bâtiments - Spécifications 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 12 December 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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Foreword

This document (EN 13321-1:2006) 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 July 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

CEN /TC 247, "Building Automation, Controls and Building Management" - in collaboration with CENELEC TC205 "Home and Building Electronic Systems (HBES)" and its co-operation partner Konnex Association - has prepared this document to reference the relevant parts of the CENELEC TC205 EN 50090 series also as a CEN TC247 specification and to extend their area of application to Building, Automation and Control Systems (BACS).

This European Standard supersedes ENV 13154-2:1998, together with EN 14908-1:2005 and 14908-2:2005.

This European Standard supersedes ENV 13321-1:1999.

prEN 13321 supersedes the protocols Batibus, EHS and EIB of ENV 13 154-2, 1998 "Data communication for HVAC application" - Field net - Part 2: Protocols

EN 14908-1 and EN 14908-2 supersedes the protocol LonTalk of ENV 13 154-2, 1998 "Data communication for HVAC application" - Field net - Part 2: Protocols

CEN takes no position concerning the evidence, validity and scope of patent rights. Konnex Association, as Cooperating Partner to CENELEC, confirms that to the extent that the standard contains patents and like rights, the Konnex Association's members are willing to negotiate licenses thereof with applicants throughout the world on fair, reasonable and non-discriminatory terms and conditions.

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

This EN 13321-1 is part 1 of the EN 13321 series of European Standards under the general title *Building Automation and Control* - Home and Building Electronic Systems, which will comprise the following parts:

Part 1: Product and System requirements

Part 2: KNXnet/IP communication

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

Introduction

The permanent objective of CENELEC TC205 is to prepare standards for all aspects of Home and Building Electronic Systems (HBES) in relation to the Information Society. Such HBES standards shall ensure 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 shall take into account all matters of EMC and electrical and functional safety. 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 services needs.

Extending these standardised Home and Building Electronic Systems (HBES) requirements also 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 standard 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 standardisation this standard supports the eEurope objectives and helps to comply with important EU Directives such as the Construction Products' Directive and the Energy Performance of Buildings' Directive.

1 Scope

As for Home or Building Electronic Systems (HBES) this resulting standard provides 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 decentralized and linked through a common communication process. This standard sets the basic requirements for products and systems. The requirements may also apply to the distributed functions of any equipment connected in a home or building control system if no specific standard exist for this equipment or system.

Consequently with its reference to the EN 50090 series this standard sets requirements for the BACS area as regards Architecture and Hardware, Application and Communication of systems based on HBES by specifying the basic requirements for:

- general considerations;
- environmental conditions/ external influences;
- electrical safety;
- functional Safety in normal use;
- EMC;
- security;
- interoperability (between products and systems).

The functional safety requirements of this Standard apply together with the relevant product standard for the device if any.

2 Requirements

Building Automation and Control Systems (BACS) applications according to this standard shall use the requirements stated in the CENELEC EN 50090 series of European Standards, which comprises the following parts relevant to this EN

Part 2: System overview

Part 3: Aspects of application

Part 4: Media independent layers

Part 5: Media and media dependent layers

Part 6: Interfaces

Part 7: System management

All applicable parts of this CENELEC EN 50090 series are listed together with their exact references in **Annex C**.