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Installationsbussar – Del 1: Översikt

*Home and Building Electronic Systems, (HBES) –
Part 1: Standardization structure*

Som svensk standard gäller europastandarden EN 50090-1:2011. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50090-1:2011.

Nationellt förord

Tidigare fastställd svensk standard SS-EN 50090-2-1, utgåva 1, 1997, gäller ej fr o m 2014-02-21.

ICS 97.120

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English version

**Home and Building Electronic Systems (HBES) -
Part 1: Standardization structure**

Systèmes électroniques pour les foyers
domestiques et les bâtiments (HBES) -
Partie 1: Structure de la norme

Elektrische Systemtechnik für Heim und
Gebäude (ESHG) -
Teil 1: Aufbau der Norm

This European Standard was approved by CENELEC on 2011-02-21. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 205, Home and Building Electronic Systems, joined by the co-operating partner Konnex Association.

The text of the draft was submitted to the Unique Acceptance Procedure and was accepted by CENELEC as EN 50090-1 on 2011-02-21.

This document supersedes EN 50090-2-1:1994.

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

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2012-02-21
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-02-21

EN 50090-1 is part of the EN 50090 series “Home and Building Electronic Systems (HBES)”, which will comprise the following parts (see Clause 2 for further details):

Part 1: Standardization structure;

Part 2: Void;

NOTE EN 50090-2-1:1994 is incorporated and superseded by this Part 1.

EN 50090-2-2:1996 and its amendments are incorporated and superseded by EN 50491-3:2009, EN 50491-5-1:2010, EN 50491-5-2:2010 and EN 50491-5-3:2010.

EN 50090-2-3:2005 will be incorporated and superseded by the EN 50491 series.

Part 3: Aspects of application;

Part 4: Transport layer and network layer;

Part 5: Media and media dependent layers;

Part 6: Interfaces;

Part 7: Management;

Part 8: Conformity assessment of products;

Part 9: Installation requirements.

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Introduction

This European Standard outlines the main elements of the HBES Open Communication System and the concept behind it. It should be used as a guideline for the EN 50090 series.

Home and Building Electronic Systems as provided by the HBES Open Communication System are a specialized form of automated, decentralised and distributed process control, dedicated to the needs of home and building applications.

The specification of the HBES Open Communication System provides, besides runtime characteristics, a “toolkit” of services and mechanisms for network management.

On the HBES Open Communication System Device Network, all devices form distributed applications, which are able to interact with one another taking into account Interworking rules (standardized Datapoint Types and “Functional Block” objects, modelling logical device channels). This run-time Interworking allows the creation of a comprehensive and multi-domain home and building communication system

The available communication media range from Twisted Pair to Powerline and 868 MHz band Radio Frequency.

The HBES Open Communication system is independent of any specific microprocessor platform or architecture. Depending on the profile chosen by the manufacturer, any suitable industry-standard chip can be chosen. Some HBES Open Communication System profiles allow a tiny system footprint (say < 5 kbit) and can run on an 8-bit processor. Implementations can however also be realised on 16- or 32-bit processors, or even PC's.

The features of HBES Open Communication System allow its use in different application domains and installation types, and also in “Service Network” environments (usually based on broadband networks running IP, the Internet Protocol). To address this need, the transmission of HBES Open Communication System frames across an IP network has been standardised in EN 50090-4-3:2007.

1 Scope

This European Standard concentrates on control applications for Home and Building HBES Open Communication System and covers any combination of electronic devices linked via a digital transmission network. Home and Building Electronic System as provided by the HBES Open Communication System is a specialized form of automated, decentralised and distributed process control, dedicated to the needs of home and building applications.

The EN 50090 series concentrates on HBES Open Communication System Class 1 and includes a specification for a communication network for Home and Building for example for the control of lighting, heating, food preparation, washing, energy management, water control, fire alarms, blinds control, different forms of security control, etc.

This European Standard gives an overview of the features of the HBES Open Communication System and provides the reader with references to the different parts of EN 50090 series.

This European Standard is used as a product family standard. It is not intended to be used as a stand-alone standard.

2 Normative references

The following referenced documents are indispensable for the application 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 50090-3-1	1994	Home and Building Electronic Systems (HBES) – Part 3-1: Aspects of application – Introduction to the application structure
EN 50090-3-2	2004	Home and Building Electronic Systems (HBES) – Part 3-2: Aspects of application – User process for HBES Class 1
EN 50090-3-3	2009	Home and Building Electronic Systems (HBES) – Part 3-3: Aspects of application – HBES Interworking model and common HBES data types
EN 50090-4-1	2004	Home and Building Electronic Systems (HBES) – Part 4-1: Media independent layers – Application layer for HBES Class 1
EN 50090-4-2	2004	Home and Building Electronic Systems (HBES) – Part 4-2: Media independent layers – Transport layer, network layer and general parts of data link layer for HBES Class 1
EN 50090-4-3	2007	Home and Building Electronic Systems (HBES) – Part 4-3: Media independent layers – Communication over IP (EN 13321-2:2006)
EN 50090-5-1	2005	Home and Building Electronic Systems (HBES) – Part 5-1: Media and media dependent layers – Power line for HBES Class 1
EN 50090-5-2	2004	Home and Building Electronic Systems (HBES) – Part 5-2: Media and media dependent layers – Network based on HBES Class 1, Twisted Pair
EN 50090-5-3	2006	Home and Building Electronic Systems (HBES) – Part 5-3: Media and media dependent layers – Radio frequency
EN 50090-7-1	2004	Home and Building Electronic Systems (HBES) – Part 7-1: System management – Management procedures
EN 50090-8	2000	Home and Building Electronic Systems (HBES) – Part 8: Conformity assessment of products

EN 50090-9-1	2004	Home and Building Electronic Systems (HBES) – Part 9-1: Installation requirements – Generic cabling for HBES Class 1 Twisted Pair
CLC/TR 50090-9-2	2007	Home and Building Electronic Systems (HBES) – Part 9-2: Installation requirements – Inspection and testing of HBES installation
EN 50491-2	2010	General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 2: Environmental conditions
EN 50491-3	2009	General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 3: Electrical safety requirements
EN 50491-5-1	2010	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	2010	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	2010	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
CLC/TR 50552	2010	Home and Building Electronic Systems (HBES) – Open communication system – Interfaces – Medium interface, twisted pair, class 1