

**Home and Building Electronic Systems  
(HBES) Part 5-1: Media and media  
dependent layers - Power line for HBES  
Class 1**

Home and Building Electronic Systems (HBES) Part  
5-1: Media and media dependent layers - Power line  
for HBES Class 1

## EESTI STANDARDI EESSÖNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50090-5-1:2005 sisaldb Euroopa standardi EN 50090-5-1:2005 ingliskeelset teksti.	This Estonian standard EVS-EN 50090-5-1:2005 consists of the English text of the European standard EN 50090-5-1:2005.
Käesolev dokument on jõustatud 27.04.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 27.04.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kätesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

### Käsitlusala:

This European Standard defines the mandatory and optional requirements for the medium specific physical and data link layer of power line Class 1 in its two variations PL110 and PL132. Data link layer interface and general definitions, which are medium independent, are given in EN 50090-4-1.

### Scope:

This European Standard defines the mandatory and optional requirements for the medium specific physical and data link layer of power line Class 1 in its two variations PL110 and PL132. Data link layer interface and general definitions, which are medium independent, are given in EN 50090-4-1.

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**Home and Building Electronic Systems (HBES)**  
**Part 5-1: Media and media dependent layers -**  
**Power line for HBES Class 1**

Systèmes électroniques pour les foyers  
domestiques et les bâtiments (HBES)  
Partie 5-1: Medias et couches  
dépendantes des medias -  
Courants porteurs pour HBES Classe 1

Elektrische Systemtechnik für Heim  
und Gebäude (ESHG)  
Teil 5-1: Medien und medienabhängige  
Schichten -  
Signalübertragung auf elektrischen  
Niederspannungsnetzen  
für ESHG Klasse 1

This European Standard was approved by CENELEC on 2004-09-01. 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 one official version (English). 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 205, Home and Building Electronic Systems (HBES) with the help of CENELEC co-operation partner Konnex Association, Neerveldstraat 105, B-1200 Brussels, (former EHBESA).

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50090-5-1 on 2004-09-01.

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) 2005-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-09-01

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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. CENELEC shall not be held responsible for identifying any or all such patent rights.

EN 50090-5-1 is part of the EN 50090 series of European Standards, which will comprise the following parts:

- Part 1: Standardization structure
  - 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
  - Part 8: Conformity assessment of products
  - Part 9: Installation requirements
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## 1 Scope

This European Standard defines the mandatory and optional requirements for the medium specific physical and data link layer of power line Class 1 in its two variations PL110 and PL132.

Data link layer interface and general definitions, which are medium independent, are given in EN 50090-4-1.

## 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 50090-1	- <sup>1)</sup>	<i>Home and Building Electronic Systems (HBES) Part 1: Standardization structure</i>
EN 50090-2-2	1996	<i>Home and Building Electronic Systems (HBES) Part 2-2: System overview - General technical requirements</i>
EN 50090-4-1	2004	<i>Home and Building Electronic Systems (HBES) Part 4-1: Media independent layers - Application layer for HBES Class 1</i>
EN 50090-4-2	2004	<i>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</i>
EN 50090-5-2	2004	<i>Home and Building Electronic Systems (HBES) - Part 5-2: Media and media dependent layers - Network based on HBES Class 1, Twisted Pair</i>
EN 50065-1	2001	<i>Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz Part 1: General requirements, frequency bands and electromagnetic disturbances</i>
EN 50065-4-6	2004	<i>Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz Part 4-6: Low voltage decoupling filters - Phase coupler</i>
EN 50065-7	2001	<i>Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz Part 7: Equipment impedance</i>
EN 50160	1999	<i>Voltage characteristics of electricity supplied by public distribution systems</i>
EN 55016-1-2	2004	<i>Specification for radio disturbance and immunity measuring apparatus and methods Part 1-2: Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances (CISPR 16-1-2:2003)</i>
EN 61643-11	2002	<i>Low-voltage surge protective devices – Part 11: Surge protective devices connected to low-voltage power systems - Requirements and tests (IEC 61643-1:1998 + corrigendum Dec. 1998, modified)</i>

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<sup>1)</sup> At draft stage.