

<b>STN</b>	<b>Elektronické systémy pre byty a budovy (HBES) Časť 3-4: Zabezpečenie na aplikačnej vrstve, servis zabezpečenia, konfigurácia zabezpečenia a bezpečnostné zdroje</b>	<b>STN EN 50090-3-4</b>  36 8051
------------	--	--

Home and Building Electronic Systems (HBES) - Part 3-4: Secure Application Layer, Secure Service, Secure configuration and security Resources

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. 12/17

Obsahuje: EN 50090-3-4:2017

**125811**

---

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018  
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

ICS 97.120

English Version

## Home and Building Electronic Systems (HBES) - Part 3-4: Secure Application Layer, Secure Service, Secure configuration and security Resources

Systèmes électroniques pour les foyers domestiques et les  
bâtiments (HBES) - Partie 3-4 : Spécification des KNX S  
AL, Service sécurisé, configuration sécurisée et Ressources  
en matière de sécurité

Elektrische Systemtechnik für Heim und Gebäude (ESHG) -  
Teil 3-4: Informationssicherheit auf Anwendungsschicht,  
Dienste, Konfiguration und Ressourcen

This European Standard was approved by CENELEC on 2017-06-12. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword .....</b>	<b>3</b>
<b>Introduction .....</b>	<b>4</b>
<b>1 Scope .....</b>	<b>5</b>
<b>2 Normative references .....</b>	<b>5</b>
<b>3 Terms, definitions and abbreviations .....</b>	<b>5</b>
3.1 Terms and definitions .....	5
3.2 Abbreviations .....	7
<b>4 General Introduction (informative) .....</b>	<b>7</b>
4.1 General .....	7
4.2 General Overview.....	11
<b>5 Specification.....</b>	<b>12</b>
5.1 Stack and communication .....	12
5.2 Resource definition or used Resources.....	50
<b>Annex A (informative) Use of CCM.....</b>	<b>52</b>
<b>A.1 Goal.....</b>	<b>52</b>
<b>A.2 Definitions .....</b>	<b>52</b>
<b>A.3 CCM operation .....</b>	<b>52</b>
<b>Annex B (informative) Examples — Full encoding of a HBES Secure APDU.....</b>	<b>57</b>
<b>B.1 General .....</b>	<b>57</b>
<b>B.2 S-A_Data-PDU .....</b>	<b>57</b>
<b>B.3 S-A_Data-PDU .....</b>	<b>58</b>
<b>B.4 S-A_Sync.req.....</b>	<b>59</b>
<b>B.5 S-A_Sync.res.....</b>	<b>60</b>
<b>Bibliography .....</b>	<b>62</b>

## European foreword

This document (EN 50090-3-4:2017) has been prepared by CLC/TC 205 "Home and Building Electronic Systems (HBES)".

The following dates are fixed:

- latest date by which this document has to be (dop) 2018-06-12 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2020-06-12 with this document have to be withdrawn

EN 50090-3 is composed with the following parts:

- EN 50090-3-1, *Home and Building Electronic Systems (HBES) — Part 3-1: Aspects of application — Introduction to the application structure*;
- EN 50090-3-2, *Home and Building Electronic Systems (HBES) — Part 3-2: Aspects of application — User process for HBES Class 1*;
- EN 50090-3-3, *Home and Building Electronic Systems (HBES) — Part 3-3: Aspects of application — HBES Interworking model and common HBES data types*;
- EN 50090-3-4, *Home and Building Electronic Systems (HBES) — Part 3-4: Secure Application Layer, Secure Service, Secure configuration and security Resources*.

## **Introduction**

KNX Association as Cooperating Partner to CENELEC confirms that to the extent that the standard contains patents and like rights, the KNX Association's members are willing to negotiate licenses thereof with applicants throughout the world on fair, reasonable and non-discriminatory terms and conditions.

Attention is drawn to the possibility that some of the elements of this document 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.

CEN and CENELEC maintain online lists of patents relevant to their standards. Users are encouraged to consult the lists for the most up to date information concerning patents (<ftp://ftp.cencenelec.eu/EN/IPR/Patents/IPRdeclaration.pdf>).

## 1 Scope

This European Standard defines security for Home and Building HBES Open Communication System. It is based on ISO/IEC 24767-2, Home network security / Secure Communication Protocol Middleware (SCPM).

Having a secure HBES solution has several advantages.

- It makes the HBES RF Communication Medium more secure:

HBES RF Radio Frames in plain communication can easily be traced (by sniffer for example).

- It allows for secure applications.

Secure communication is interesting in shutter – and door control and anti-intrusion security, in order to prevent intrusive commands (burglars...).

It is also interesting in metering to protect for example electrical consumption data.

This document does not define any type of application.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50090-1:2011, *Home and Building Electronic Systems (HBES) - Part 1: Standardization structure*

EN 50090-3-2, *Home and Building Electronic Systems (HBES) - Part 3-2: Aspects of application - User process for HBES Class 1*

EN 50090-4-1, *Home and Building Electronic Systems (HBES) - Part 4-1: Media independent layers - Application layer for HBES Class 1*

EN 50090-4-2, *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*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**