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Interested committees:

Title: BS ISO/IEC 15067-5 Information technology - Home Electronic System (HES) application models

Part 5: A safety framework and guidelines for control and data communication

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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Responsible Committee Secretary: **Mr Delme Stephenson (BSI)**Direct tel: **020 8996 7213**E-mail: **delme.stephenson@bsigroup.com**

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



JTC1-SC25/3303/CD

COMMITTEE DRAFT (CD)

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ISO/IEC 15067-5 ED1

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2025-02-14

CLOSING DATE FOR COMMENTS:

2025-04-11

SUPERSEDES DOCUMENTS:

JTC1-SC25/3267/CD, JTC1-SC25/3297A/CC

IEC SC 25 : INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT

SECRETARIAT:

Germany

SECRETARY:

Mr Marco Peter

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 23,TC 61,TC 72,TC 100,SyC AAL

HORIZONTAL FUNCTION(S):

ASPECTS CONCERNED:

Digital content,Energy Efficiency,Information security and data privacy,Safety

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any local regulations or technical reasons that may exist and should be considered should this proposal proceed, recognizing that failure to address such requirements could result in the need for new or existing "In Some Countries" clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Information technology - Home Electronic System (HES) application models - Part 5: A safety framework and guidelines for control and data communication messages

NOTE FROM TC/SC OFFICERS:

SC 25 WG1 experts decided to go for a second CD.

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**INFORMATION TECHNOLOGY –
HOME ELECTRONIC SYSTEM (HES) APPLICATION MODEL – PART 5: –
COMMUNICATION MESSAGES FOR SAFE PRODUCT OPERATION**

FOREWORD

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International Standard ISO/IEC 15067-5 has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information Technology.

This document includes the following significant technical specifications:

- Focuses on messages (such as turn on and off or set operating parameters) that may cause unsafe product operation of an appliance or device connected to a home network even though the messages are valid syntactically and semantically and were received without error.
- Specifies options for message screening by products and by the HES gateway (ISO/IEC 15045 series).
- Consolidates guidelines for categories of risk when sending messages for control or conveying data.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
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XX/XX/FDIS	XX/XX/RVD
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94

95 Full information on the voting for the approval of this International Standard can be found in
96 the report on voting indicated in the above table.

97 This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

98 The committee has decided that the contents of this document will remain unchanged until
99 the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data
100 related to the specific document. At this date, the document will be

- 101 • reconfirmed,
- 102 • withdrawn,
- 103 • replaced by a revised edition, or
- 104 • amended.

105

106 The National Committees are requested to note that for this document the stability date
107 is 20XX.

108 this text is included for the information of the national committees and will be deleted at the
109 publication stage.

110

INTRODUCTION

Improving safety for consumers using appliances connected to a local area network in a home or building (called “networked appliances”) depends on many factors:

- Appliance design
- Appliance installation
- Appliance configuration
- Appliance provisioning of features
- Appliance user interface
- Appliance operation
- Appliance field upgrades
- Appliance maintenance
- Appliance repairs

This document focuses on the safety aspects of “appliance operation” related to network communications. It specifies safety enhancements for screening and processing digital messages intended for networked appliances, especially for remotely-operated devices. Such messages include commands for

- turning an appliance on or off, or
- changing an operation setting such as temperature or speed.

These messages are not related to a specific communications protocol, but can use external and home area network communication protocols to convey the message contents.

This document was developed in consultation with the working group that wrote IEC 63044-4, *Home and building electronic systems (HBES) and building automation and control systems (BACS) – Part 4: General functional safety requirements for products intended to be integrated in HBES and BACS*. IEC 63044-4 addresses many hazards and electrical safety issues. This document addresses the following issues that were not included in IEC 63044-4:

- Screening out messages that can make the operation of appliances connected to a home network risky and less safe for consumers
- Enhancements provided by the Home Electronic System (HES) gateway such as data security and extensions of HES gateway services for safer operation of attached networked devices.

As IEC 63044-4 specifies, corrupted messages must be recognised and discarded or resent. However, a particular challenge is recognising and responding appropriately to a valid message that might create an unsafe operation because of the particular operating environment of appliances and devices attached to a home or building network. Examples are presented in this document.

The specifications in this document provide guidelines for making the operation of appliances safer when attached to a home control system (hcs) network. An HES network is a type of hcs that conforms to the family of HES standards. An HES network that includes an HES gateway enhances the safer operation of connected products. Thus, an HES network can provide a higher level of safety for consumers than a generic hcs network.

NOTE: ISO/IEC HES standards are identified by HES or “Home Electronic System” in the title.

Additional HES safety protections can be provided by the HES gateway, which is responsible for: