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INFORMATION TECHNOLOGY – FUNCTIONAL SAFETY REQUIREMENTS FOR HOME AND BUILDING ELECTRONIC SYSTEMS (HBES)

FOREWORD

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2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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9) Attention is drawn to the normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

10) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 14762 has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

This International Standard cancels and replaces ISO/IEC TR 14762, published in 2001, and constitutes a technical revision.

The main changes with respect to the Technical Report are the following:

While the Technical Report lists reasons for harms and some possible counter measures this International Standard extends the list of hazards and specifies specific measures to counter them.

This International Standard applies to all physical media, however, additional aspects of wireless and powerline features covered in ISO/IEC 24767 are not repeated.

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This standard has the status of a product family standard and may be used as a normative reference in a dedicated product standard for the safety of home and building electronic systems. It is not intended to be used as a stand-alone publication.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

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

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INTRODUCTION

Home and Building Electronic System (HBES) products integrated in a HBES should be safe for the use in intended applications.

This International Standard specifies the general functional safety requirements for HBES following the principles of the basic standard for functional safety, IEC 61508.

This International Standard identifies functional safety issues related to products and their installation. The requirements are based on a risk analysis in accordance with IEC 61508.

The intention of this International Standard is to allocate, as far as possible, all safety requirements for HBES products in their life cycle.

This International Standard only addresses HBES products.

This International Standard is addressed to committees that develop or modify HBES product/system standards, or, where no suitable HBES product standards addressing functional safety exist, to product manufacturers.

HBES and HES products in this International Standard are for non-safety related applications.

For related standards, see the IEC website.

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INFORMATION TECHNOLOGY – FUNCTIONAL SAFETY REQUIREMENTS FOR HOME AND BUILDING ELECTRONIC SYSTEMS (HBES)

1 Scope

ISO/IEC 14762 sets the requirements for functional safety for Home and Building Electronic Systems (HBES) products and systems, a multi-application bus system where the functions are decentralised, distributed and linked through a common communication process. The requirements may also apply to the distributed functions of any equipment connected in a home or building control system if no specific functional safety standard exists for this equipment or system.

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

This International Standard does not provide functional safety requirements for safety-related systems.

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.

The provisions of the referenced specifications other than ISO/IEC, IEC, ISO and ITU documents, as identified in this clause, are valid within the context of this International Standard. The reference to such a specification within this International Standard does not give it any further status within ISO or IEC. In particular, it does not give the referenced specification the status of an International Standard.

ISO/IEC 14543-2-1, *Information technology – Home electronic systems (HES) architecture – Part 2-1: Introduction and device modularity*

ISO/IEC Guide 51, *Safety aspects – Guidelines for their inclusion in standards*

IEC 61508 (all parts), *Functional safety of electrical/electronic/programmable electronic safety-related systems*

IEC 61508-1:1998, *Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements*

IEC 61508-4:1998, *Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 4: Definitions and abbreviations; including its corrigendum 1 from April 1999*

IEC 61508-5:1998, *Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 5: Examples of methods for the determination of safety integrity levels; including its corrigendum 1 from April 1999*

IEC 61709:1996, *Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion*

ISO 9000 series, *Quality management systems*

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EN 50090-2-2, *Home and Building Electronic Systems (HBES) – Part 2-2: System overview – General technical requirements*