

# TECHNICAL SPECIFICATION

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**Guidelines for the inclusion of documentation aspects in product standards  
(standards.iteh.ai)**

IEC TS 62666:2016

<https://standards.iteh.ai/catalog/standards/sist/e2cabb8d-74b5-4a97-9b5c-e20a737c67bc/iec-ts-62666-2016>



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 01.110

ISBN 978-2-8322-3569-0

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## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions .....	6
4 Principal guidelines .....	9
4.1 Adaptation to the needs for the system or product.....	9
4.2 Adaptation to the structure of the publication .....	9
5 Requirements to be covered .....	10
5.1 Information requirements.....	10
5.2 Documentation requirements .....	11
5.2.1 General .....	11
5.2.2 Structuring of the documentation .....	12
5.2.3 Identification and classification.....	13
5.2.4 Document kinds, their purpose and preparation .....	15
5.2.5 Graphical symbols .....	15
5.2.6 Characteristic properties and data element types.....	16
5.3 Requirements on documentation generated by tools other than CAx tools .....	17
Annex A (informative) Example of a clause specifying documentation requirements for a complex system or product.....	18
A.1 Technical documentation.....	18
A.2 Information to be provided.....	18
A.3 Requirements for documents and documentation .....	19
A.3.1 General requirements.....	19
A.3.2 Main document .....	19
A.3.3 Labelling.....	20
A.4 Specific requirements for certain kinds of information.....	20
A.4.1 Information on installation and mounting.....	20
A.4.2 Information on factory and site testing .....	20
A.4.3 Information on function and operation.....	20
A.4.4 Information on maintenance .....	20
A.4.5 Information on disassembly, recycling and disposal .....	20
Annex B (informative) Example of a clause specifying documentation requirements for a simple (consumer) product.....	21
B.1 Technical documentation.....	21
B.2 Information to be provided.....	21
B.3 Requirements for documents and documentation .....	22
B.3.1 General requirements.....	22
B.3.2 Labelling.....	22
B.3.3 Specific requirements for some kinds of information.....	22
Bibliography .....	24

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**GUIDELINES FOR THE INCLUSION OF DOCUMENTATION  
ASPECTS IN PRODUCT STANDARDS**

## FOREWORD

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- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62666, which is a technical specification, has been prepared by IEC technical committee 3: Information structures and elements, identification and marking principles, documentation and graphical symbols.

This second edition cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the references to relevant standards have been updated and horizontal standards have been designated;
- b) a new subclause "Identification of equipment, basic and safety principles" has been added. The reason for this is that a group of standards have been placed under the responsibility of TC 3.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
3/1256/DTS	3/1261/RVC

Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.

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

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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or [IEC TS 62666:2016](https://standards.iteh.ai/catalog/standards/sist/e2cabb8d-74b5-4a97-9b5c-e20a737c67bc/iec-ts-62666-2016)
- amended.

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

This Technical Specification is developed in response to expressed needs for guidelines on requirements for documentation in product and system standards.

This document is written for the target group Product Committee Secretaries, PT- and MT-members, etc. It provides some basic information on documentation principles, explanations and justifications to why the references to documentation standards should be made. It is assumed that experts developing product standards have not necessarily relevant documentation aspects as their primary interest. As a consequence, the text may by some be found too “educational” for a standard. In a guideline it may, however, be more appropriate.

The two annexes are examples intended to be used as templates for how texts should be included in product standards.

## **iTeh STANDARD PREVIEW** **(standards.iteh.ai)**

[IEC TS 62666:2016](#)

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# GUIDELINES FOR THE INCLUSION OF DOCUMENTATION ASPECTS IN PRODUCT STANDARDS

## 1 Scope

This Technical Specification provides guidelines to ensure consistency with respect to the specification of requirements for information, documentation and graphical symbols in IEC publications provided by system or product committees.

NOTE 1 Guidelines regarding inclusion of graphical symbols on equipment are presented in IEC 62648.

NOTE 2 This Technical Specification is based on and fully customizes IEC Guide 108.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE 1 An alphabetical index including all terms is contained at the end of this document.

NOTE 2 Definitions taken over from other International Standards are not necessarily literally cited, but adapted to the form required for terms and definitions according to the ISO/IEC Directives.

### 3.1 knowledge

body of understanding and skills

Note 1 to entry: The “body of understanding” can e.g. consist of facts, concepts and instructions.

### 3.2 information

knowledge (see 3.1) that is communicated

### 3.3 data

representation of information (see 3.2) in a formalized manner suitable for communication, interpretation or processing

Note 1 to entry: Data can be processed by humans or by electronic means.

### 3.4 data carrier

material on which data (see 3.3) can be stored

### 3.5 medium

means of representing data (see 3.3) on a data carrier (see 3.4)



### 3.6 data element type

#### DET

unit of data (see 3.3) for which the identification, description and value representation have been specified

[SOURCE: IEC 61360-1:2009, 2.3]

### 3.7 document

fixed and structured amount of information (see 3.2) that can be managed and interchanged as a unit between users and systems

Note 1 to entry: This unit may not necessarily be human perceptible. Information (see 3.2) is usually stored as data on a data medium (see 3.5).

Note 2 to entry: “users” refers in this definition to users of information (see 3.2) and “systems” refers to systems managing information and documentation (see 3.10).

[SOURCE: IEC 82045-1:2001, 3.2.3, modified – Note 1 has been slightly changed and Note 2 has been added.]

### 3.8 document kind

type of document (see 3.7) defined with respect to its specified content of information (see 3.2) and form of presentation

[SOURCE: IEC 61355-1:2008, 3.6]

### 3.9 document set

collection of documents (see 3.7) that are managed together as a unit for a specific purpose

Note 1 to entry: Document sets may consist of documents (see 3.7) and composite documents.

[SOURCE: IEC 61355-1:2008, 3.4, modified – The definition has been slightly changed.]

### 3.10 documentation

collection of documents (see 3.7) related to a given subject

Note 1 to entry: This can include technical, commercial and other documents (see 3.7).

Note 2 to entry: The term may refer to objects in the sense of IEC 81346 series or to other things to be addressed.

Note 3 to entry: A documentation can consist of documents, composite documents and document sets.

Note 4 to entry: The number and kinds of documents in a documentation can differ according to purpose.

[SOURCE: IEC 61355-1:2008, 3.5]

### 3.11 domain

distinguished part of an abstract or physical space where something exists

Note 1 to entry: A domain can be e.g. an organization or a country or a part of it.

[SOURCE: IEC 62507-1:2010, 3.2]

### 3.12 object

entity treated in a process of development, implementation, usage and disposal

Note 1 to entry: The object may refer to a physical or non-physical “thing”, i.e. anything that might exist, exists or did exist.

Note 2 to entry: The object has information (see 3.2) associated to it.

[SOURCE: IEC 81346-1:2009, 3.1]

### 3.13 characteristic property

defined parameter suitable for the description and differentiation of objects (see 3.12)

[SOURCE: IEC PAS 62569-1:2009, 3.1.6, modified – “Characteristic” has been added to “property” and the note has been deleted.]

### 3.14 identifier

attribute associated with an object (see 3.12) to unambiguously identify it in a specified domain (see 3.11)

Note 1 to entry: In an identification system several types of identifiers may be required.

[SOURCE: IEC 62507-1:2010, 3.8]

### 3.15 identification number ID

string of characters representing the value of the identifier (see 3.14)

Note 1 to entry: It is practice that although the term says “number” the string can contain other types of characters as well.

Note 2 to entry: Note that the term “identifier” (see 3.14) as being an attribute and the term “identification number” as being the value of that attribute are here considered different things, but they are often mixed in existing definitions.

Note 3 to entry: Identification numbers are often required to be unique (an object (see 3.12) shall have one number only). This is an unnecessary strong requirement, it is sufficient if they are unambiguous within a specified *domain*. An *object* may have more than one identification number.

Furthermore, it is assumed in the definition that an organization may be responsible for more than one identification number domain. This is a commonly occurring situation when organizations are merged, etc.

[SOURCE: IEC 62507-1:2010, 3.5]

### 3.16 horizontal standard

standard on fundamental principles, concepts, terminology or technical characteristics, relevant to a number of technical committees and of crucial importance to ensure the coherence of the corpus of standardization documents

[SOURCE: IEC Guide 108:2006, 3.1]

### 3.17 product publication

publication covering a specific product or group of related products

Note 1 to entry: In this document, the term product includes items such as process, service, installation and combinations thereof, commonly known as systems.

Note 2 to entry: “product publication” refers in this document to publications issued by IEC. The same term is sometimes used by product manufacturers with a different meaning.

[SOURCE: IEC Guide 108:2006, 3.2, modified – Note 2 has been added.]

### **3.18 commissioning**

procedures prior, or related, to the handing over of a product ready for putting into service, including final acceptance testing, the handing over of all documentation relevant to the use of the product and, if necessary, instructing personnel

[SOURCE: IEC 82079-1:2012, 3.3]

## **4 Principal guidelines**

### **4.1 Adaptation to the needs for the system or product**

Documentation is a result of development and engineering of a system or a product. Its major purpose is to enable the system or product to be manufactured and supplied to users for intended use.

The provision of information in the form of documentation is an integral part of any delivery of system or a product and one purpose is to transfer knowledge of the system or product from the supplier to the user.

The documents accompanying the system or the product are a subset of the total number of documents on it. Documents for manufacturing and results of testing are examples on other documents. The information accompanying the system or the product should promote correct and safe application and use of the system or product for the remaining part of its life cycle.

Product standards should therefore specify required

- information, and
- documentation.

The primary requirement is on the information needs and the structuring of this information so that required information can be easily accessed by users.

A secondary requirement is how this information is “packaged” and presented in the form of a logically related collection of documents, i.e. the documentation for the system or product on relevant media.

The requirements on the documentation and the amount of documents needed depend on the complexity of the system or product as well as of the intended use and foreseen users and may vary. The specified requirements in the system or product standard should therefore be adapted to the needs in the actual case.

### **4.2 Adaptation to the structure of the publication**

In a product publication, the requirements on information and documentation should preferably be collected in one clause with subclauses for information and documentation requirements respectively.

The requirements should be included by referencing to the relevant specialized documentation standards where available, in order to keep the content of the references up-to-date with actual developments of these standards.

For the sake of understanding and promotion, the referencing should not only be made by listing standard identification numbers of such standards but should also include some introductory information that explains and justifies each reference.

If there are special documentation requirements not yet covered by existing standards, these should be incorporated as text in the system or product standard. In such cases, relevant IEC or ISO committees should also be informed about the missing information for due consideration when existing standards are revised or in order to develop new ones.

Note that before making such a proposal, consideration should be given to the fact that the terminology used in the documentation standards, for example names of document types, may be different compared to the terminology used among experts in the product committee. The database IEC 61355 (<http://std.iec.ch/iec61355>) contains the recommended terminology, but also a number of synonyms, and suggestions on how to deal with them.

Clause 5 provides information on the requirements covered in available documentation standards. The purpose of this clause is to make readers aware of the content in order to decide whether or not the requirements are relevant for the actual product publication.

Annex A is intended as a template for a clause for “Technical documentation” in a product standard for a comprehensive system or equipment (for example industrial plant or installation), which requires comprehensive documentation. The product may in this case also be expected to be modified by the user during its remaining life time and its documentation therefore to be updated and maintained by the user. The number of needed technical documents can in this case be high.

Annex B is intended as a template for a clause for “Technical documentation” in a product standard for a relatively simple (from a user perspective) consumer product that requires a simple installation or no installation at all. The supplied documentation is not intended to be updated nor maintained by the user, and it therefore focuses on the activities to be performed by the end user. In this situation, the amount of technical documents needed can be expected to be low.

Note that these annexes are examples only which can be reduced as well as extended for a specific purpose. The annexes are noted as informative in this document but the annexes show an example of text to be used normatively in a product standard, therefore the annexes use the “shall” instead of “should”.

All IEC deliverables shall be prepared in accordance with the ISO/IEC Directives, Part 2. Clause 28 and 29 of the directives regarding the use of figures, including drawings, diagrams and graphical symbols in publications are based on and refer also to publications described in the following, i.e. the requirements on documentation in product standards are applicable also to the publications themselves.

## 5 Requirements to be covered

### 5.1 Information requirements

The general purpose of the documentation of a system or a product is to enable its development, provide information for its manufacturing or assembly, document in test reports its required properties or performance and to transfer knowledge of the system or product from the supplier to the user.

The purpose of that part of the documentation accompanying a delivered system or product is to provide the information necessary for the remaining activities in the life cycle of it, i.e. usually for the installation and application, the operation and maintenance, and of the disassembly and recycling.