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INTERNATIONAL STANDARD

NORME INTERNATIONALE

HORIZONTAL STANDARD
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Classification and designation of documents for plants, systems and equipment –
Part 1: Rules and classification tables

Classification et désignation des documents pour installations industrielles, systèmes et matériels –
Partie 1: Règles et tableaux de classification

IEC 61355-1:2008

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CLASSIFICATION AND DESIGNATION OF DOCUMENTS FOR PLANTS, SYSTEMS AND EQUIPMENT –

Part 1: Rules and classification tables

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61355-1 has been prepared by IEC technical committee 3: Information structures, documentation and graphical symbols in co-operation with ISO technical committee 10: Technical product documentation.

It has the status of a horizontal standard in accordance with IEC Guide 108.

This second edition cancels and replaces the first edition published in 1997. This edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- Table A.2 has been extended under code P;
- Table B.1 in the first edition has been omitted from this second edition; it is being replaced by a separate standard in database format: IEC 61355 DB.

The text of this standard is based on the following documents:

FDIS	Report on voting
3/878/FDIS	3/890/RVD

Full information on the voting for the approval of this standard 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.

A list of all parts of IEC 61355 series, published under the general title *Classification and designation of documents for plants, systems and equipment,* can be found on the IEC website.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

Documentation is necessary for the provision of information for all activities during the life-cycle of technical products which include plants, systems and equipment. It may be produced in any phase or activity. Documents may be received from and delivered to other parties. Different parties may need different information or different views on the same information, depending on what is most suitable for the intended purpose.

In this part of IEC 61355 the term "document" is used in a very general sense. It covers information on all possible media on which data can be recorded. However, the description of document kinds is derived from the paper-based presentation of this information, i.e. how the information is made visible and readable for the user.

One aim of this standard is to establish a method for better communication and understanding between parties involved in document interchange. In order to get a basis for a system, it is necessary to disregard, more or less, what a document is called today. Different names are in use for the same document kind or the names may have different meanings for different parties. The purpose and object of interest are sometimes also part of document titles, which hampers general understanding. Therefore, the basis for a common understanding should be a document kind classification which is based only on the content of information.

Another aim is to cover the need for data retrieval as it is often based on the need for the information content of the document.

A third aim of this standard is to set up rules for a specific method of correlating documents and objects, i.e. to indicate to which object a specific document belongs. For this purpose, a document designation system is provided, linking the document kind designation to the object designation used within the plant, system or equipment. Following the rules and recommendations given, the documentation reflects the structure of the "real installation". By that also guidance is given for sorting and grouping as well as for structured searching for information, for example in document retrieval systems.

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CLASSIFICATION AND DESIGNATION OF DOCUMENTS FOR PLANTS, SYSTEMS AND EQUIPMENT –

Part 1: Rules and classification tables

1 Scope

This part of IEC 61355 provides rules and guidelines for the classification of documents based on their characteristic content of information. A letter-code indicating the document kind class is provided together with rules and guidelines for its application in a document designation code. This standard is relevant for documents in all technical areas which are in use during the life cycle of a plant, system or equipment.

NOTE The defined classes and codes are intended to be used as values associated with metadata in document management systems (see IEC 82045-1 and IEC 82045-2).

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.

IEC 61082-1:2006, *Preparation of documents used in electrotechnology – Part 1: Rules*

IEC 62023:2000, *Structuring of technical information and documentation*

ISO 639-1:2002, *Code for the representation of names of languages – Part 1: Alpha-2 code*

ISO 3166-1:2006, *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes*

ISO 7200:2004, *Technical product documentation – Data fields in title blocks and document headers*

3 Terms and definitions

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

3.1
data medium
material in or on which data can be recorded and from which data can be retrieved

[ISO/IEC 2382-1, definition 01.01.51]

3.2
document
fixed and structured amount of information intended for human perception that can be managed and interchanged as a unit between users and systems

NOTE 1 The term document is not restricted to its meaning in a legal sense.

NOTE 2 A document can be designated in accordance with the type of information and the form of presentation, for example overview diagram, connection table, function chart.

[IEC 61082-1, definition 3.1.2]

3.3
composite document
document containing different parts of information, each part related to a different document kind class

3.4
document set
collection of different *documents* which is intended to be treated as a unit

NOTE Document sets may consist of documents and composite documents.

3.5
documentation
collection of *documents* related to a given subject

[IEC 61082-1, definition 3.1.4]

NOTE 1 This may include technical, commercial and/or other documents.

NOTE 2 The term may refer to objects in the sense of IEC 81346* (61346) or to other things to be addressed.

* to be published

NOTE 3 A documentation can consist of documents, composite documents and document sets.

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

3.6
document kind
type of document defined with respect to its specified content of information and form of presentation

NOTE Sometimes the term document type is used for the same concept.

3.7
document kind class
group of *document kinds* having similar characteristics concerning the content of information independent of the form of presentation

3.8
object
entity treated in a process of design, engineering, realization, operation, maintenance, dismantling and disposal

[IEC 81346-1* (61346-1)]. * to be published

NOTE 1 The object may refer to a physical or non-physical ”thing” that might exist, exist or did exist.

NOTE 2 The object has information associated to it.

3.9
system
set of interrelated *objects* with the purpose of performing a common function

3.10
plant
assembly of different systems on a specific site

3.11
equipment
components and parts used or required for a particular purpose

3.12
project
generic term for the sum of commercial, technical, and other activities related to a specific object

3.13
object designation
identifier of a specific *object* in a given context

NOTE Examples of such designations are: reference designation, type number, serial number, name.

3.14
document designation
identifier of a specific *document* in relation to an *object* to which the document is assigned

3.15
page counting number
identifier of a specific page of a document identified by a *document designation*

3.16
document page designation
identifier of a specific page as part of a multi-page document applying a *document designation* and a *page counting number*

4 Basic concepts on documents and documentation

4.1 General

Documents provide information necessary for different activities and purposes during the life cycle of a plant, system or equipment. The term "document" is not restricted to a paper-based presentation of the information. It also includes other forms of information storage, such as data files on electronic media or in a data base.

Information requires an agreed form of presentation to be understandable for a human reader. In most cases, such a form is defined only for traditional paper-based documents or similar ways of presentation. In this standard, descriptions of document kinds are referring to the paper-based presentation. Other forms of visualisation, for example presentation on a video screen, are assumed to be equal or at least similar to the paper-based presentation.

In the context of this standard, it is necessary to distinguish between the following concepts and their interrelationship (see Figure 1):

- document kind;
- document;
- composite document;
- document set;
- documentation.

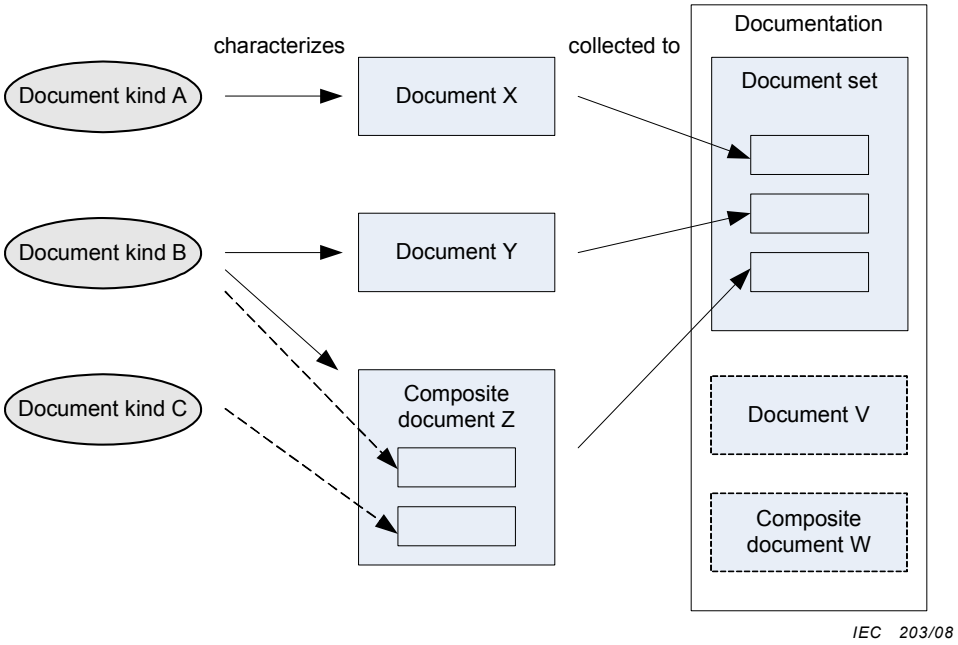

Figure 1 – Interrelation of documentation-related terms

4.2 Document kinds

A document kind shall be defined by

- a generic description of the characteristic type of information that a document prepared on the basis of this document kind is intended to contain; and
- its form of presentation.

Two different documents are of the same kind if they have similar characteristics concerning the content of information and the same form of presentation.

A document kind should neither be defined with respect to a described object nor to its intended purpose.

Each document kind is assigned a document kind class, see Clause 5.

4.3 Documents

A document:

- may provide specific information on an object of interest and may refer to that object;

NOTE 1 Documents can exist for which no clear object relationship is to be identified.

- may be classified by the relevant document kind class;
- may refer to its purpose (for what activity it is needed);
- may be visualized in an agreed form of presentation.

NOTE 2 A document can consist of one or more document pages.

4.4 Composite documents

A composite document has different parts of information content, each part being normally related to a different document kind class. For example, a document presenting an arrangement drawing together with a parts list is considered a composite document.

Special rules are required to assign a document kind class to a composite document, see 5.3.

4.5 Document sets

A document set is a collection of different documents, i.e. documents and composite documents, which is intended to be treated as a unit. A document set is not assigned a common classification.

NOTE If a document set requires a common classification, it basically becomes a composite document.

4.6 Documentation

A documentation is a collection of different documents, composite documents and document sets related to a given subject. The constituents of a documentation are classified individually. The documentation as a whole is not assigned a common classification.

5 Classification of documents

5.1 Classification principles

The classification of documents shall be based on their characteristic content of information.

NOTE Documents are characterized by document kinds which are classified in the same way as documents.

If a document can be characterized in different ways, the leading content of information shall govern its classification.

Documents shall be classified at least in two levels (Class-levels A2 and A3). They may additionally be classified in a preceding level (Class-level A1), see Figure 2.

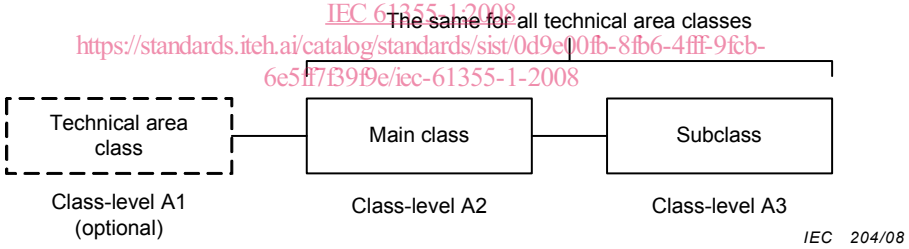

Figure 2 – Classification structure of documents

Class-level A1 represents documents containing information related to a specific technical area. It is optional and may be applied when documents from different technical areas come together, for example within one project, and which need to be clearly distinguishable from each other. Each technical area class shall apply the same main-classes and subclasses represented by Class-levels A2 and A3.

NOTE Not all main classes and subclasses may be of relevance in each technical area.

Class-level A2 represents main-classes of documents. Documents are assigned to the same main-class if they contain the same characteristic information.

Class-level A3 represents subclasses of documents related to one specific main-class. Documents belong to the same subclass if they have a common description of the content of information within the relevant main-class and subclass.

Each main-class and subclass is defined in this standard by a short description of the characteristic content of information (see Table A.2). The description of a subclass is valid only together with the description of the relevant main-class.

5.2 Assigning documents to classes

A document shall be associated with a main-class and a related subclass when the main characteristic content of information of the document matches completely or at least partly the descriptions for a main-class and subclass.

There may be cases where the content of information matches the main-class but the content of information is not completely or at least partly matching the subclass description. In such cases, the unspecified subclass with letter Z may be used as an exception. The use of this subclass shall be restricted. If used it should be specified in the document or in supporting documentation.

NOTE Classes with letter Z are preliminary. Users are encouraged to apply for future standardization of missing class-definitions.

5.3 Assigning composite documents to classes

A composite document shall be associated with a main-class and a related subclass according to the leading document kind class identified in the composition.

For example, an arrangement drawing showing also a parts list is classified as an arrangement drawing if this is considered the leading part.

If no leading constituent is obvious, any of the constituent document kind classes may be chosen.

NOTE Each individual constituent of a composite document may be assigned its individual document kind class. This may be advantageous for the use of computer-aided documentation systems.

5.4 Layout of document kind classification code (DCC)

Figure 3 shows the layout of the document kind classification code (DCC). It consists of the prefix sign "&" (ampersand) followed by a code consisting of three letters which are defined in this standard. The position of each code-letter is indicated by A1, A2, and A3. When presented in a document, the prefix sign may be omitted if there is no risk of misunderstanding.

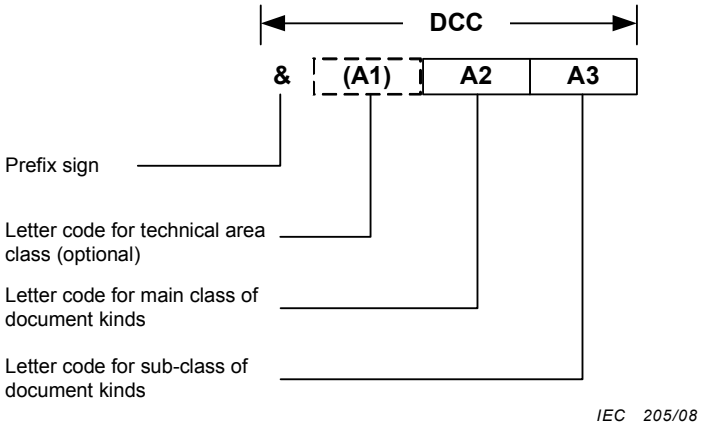

Figure 3 – Structure of document kind classification code

The positions in the DCC are defined as follows:

- A1 represents Class-level A1. It is optional and indicates the technical area class (see Table A.1);

NOTE 1 The term "technical area" is to be taken in a more general sense; it also covers, for example, management aspects.