SLOVENSKI STANDARD
SIST EN 61082-4:1997

01-december-1997

Preparation of documents used in electrotechnology - Part 4: Location and installation documents (IEC 1082-4:1996)

Preparation of documents used in electrotechnology -- Part 4: Location and installation documents

Dokumente der Elektrotechnik -- Teil 4: Ortsbezogene- und Installationsdokumente

Etablissement des documents utilisés en électrotechnique -- Partie 4: Documents d'implantation et d'installation

Ta slovenski standard je istoveten z: EN 61082-4:1996

ICS:

01.110	Tehnična dokumentacija za izdelke	Technical product documentation
29.020	Elektrotehnika na splošno	Electrical engineering in general

SIST EN 61082-4:1997 **en**

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61082-4

May 1996

ICS 29.020

Descriptors: Documentation, electrotechnology, diagrams, location, electrical installation

English version

Preparation of documents used in electrotechnology
Part 4: Location and installation documents
(IEC 1082-4:1996)

Etablissement des documents utilisés en électrotechnique
Partie 4: Documents d'implantation et d'installation
(CEI 1082-4:1996)

Dokumente der Elektrotechnik
Teil 4: Ortbezogene- und Installationsdokumente
(IEC 1082-4:1996)

This European Standard was approved by CENELEC on 1996-03-05. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 3B/147/FDIS, future edition 1 of IEC 1082-4, prepared by SC 3B, Documentation, of IEC TC 3, Documentation and graphical symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61082-4 on 1996-03-05.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annexes A and B are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1082-4:1996 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 617-2	1983	Graphical symbols for diagrams Part 2: Symbol elements, qualifying symbols and other symbols having general application	-	-
IEC 617-3	1983	Part 3: Conductors and connecting devices	-	-
IEC 617-4	1983	Part 4: Passive components	-	-
IEC 617-5	1983	Part 5: Semi-conductors and electron tubes	-	-
IEC 617-6	1983	Part 6: Production and conversion of electrical energy	-	-
IEC 617-7	1983	Part 7: Switchgear, controlgear and protective devices	-	-
IEC 617-8	1983	Part 8: Measuring instruments, lamps and signalling devices	-	-
IEC 617-9	1983	Part 9: Telecommunications: Switching and peripheral equipment	-	-
IEC 617-10	1983	Part 10: Telecommunications: Transmission	-	-
IEC 617-11	1983	Part 11: Architectural and topographical installation plans and diagrams	-	-
IEC 1082-1	1991	Preparation of documents used in electrotechnology Part 1: General requirements	EN 61082-1	1993
IEC 1082-2	1993	Part 2: Function-oriented diagrams	EN 61082-2	1994
IEC 1082-3	1993	Part 3: Connection diagrams, tables and lists	EN 61082-3	1994

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Etablissement des documents utilisés en électrotechnique –

Partie 4: Documents d'implantation et d'installation

Preparation of documents used in electrotechnology –

Part 4: Location and installation documents

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Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PREPARATION OF DOCUMENTS USED IN ELECTROTECHNOLOGY –

Part 4: Location and installation documents

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters, express as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.

4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

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

International Standard IEC 1082-4 has been prepared by sub-committee 3B: Documentation, of IEC technical committee 3: Documentation and graphical symbols.

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

FDIS	Report on voting
3B/147/FDIS	3B/168/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.

PREPARATION OF DOCUMENTS USED IN ELECTROTECHNOLOGY –

Part 4: Location and installation documents

1 General

1.1 *Scope*

This part of IEC 1082 provides rules for location and installation documents mainly used for installation work. It covers different systems and objects such as arrangement or installation drawings for site, buildings and equipment, installation drawings or diagrams for site or buildings, and drawings for location on or in components.

1.2 *Normative references*

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 1082. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 1082 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 617-2: 1983, *Graphical symbols for diagrams – Part 2: Symbol elements, qualifying symbols and other symbols having general application*

IEC 617-3: 1983, *Graphical symbols for diagrams – Part 3: Conductors and connecting devices*

IEC 617-4: 1983, *Graphical symbols for diagrams – Part 4: Passive components*

IEC 617-6: 1983, *Graphical symbols for diagrams – Part 6: Production and conversion of electrical energy*

IEC 617-7: 1983, *Graphical symbols for diagrams – Part 7: Switchgear, controlgear and protective devices*

IEC 617-8: 1983, *Graphical symbols for diagrams – Part 8: Measuring instruments, lamps and signalling devices*

IEC 617-9: 1983, *Graphical symbols for diagrams – Part 9: Telecommunications: Switching and peripheral equipment*

IEC 617-10: 1983, *Graphical symbols for diagrams – Part 10: Telecommunications: Transmission*

IEC 617-11: 1983, *Graphical symbols for diagrams – Part 11: Architectural and topographical installation plans and diagrams*

IEC 1082-1: 1991, *Preparation of documents used in electrotechnology – Part 1: General requirements*

IEC 1082-2: 1993, *Preparation of documents used in electrotechnology – Part 2: Function-oriented diagrams*

IEC 1082-3: 1993, *Preparation of documents used in electrotechnology – Part 3: Connection diagrams, tables and lists*

IEC 1346-1: 1996, *Structuring principles and reference designation – Part 1: Basic rules*

ISO 10209-1: 1992, *Technical product documentation – Part 1: Terms relating to technical drawings: general and types of drawings*

2 Definitions

For the purpose of this part of IEC 1082, the following definitions apply.

installation:

a) Activities of arranging facilities for electrical equipment and of placing and interconnecting it on site with the purpose of making it ready for functioning together.

b) Result of these activities, e.g. the lighting system of a house.

NOTES

1 Installation may be part of the manufacturing process of pre-assembled units. Documents for these activities are not the subject of this standard.

2 The term "installation" is used for the set-up of computer software. Documents for this activity are not the subject of this standard.

3 The term "installation" is often used for an object (e.g., the lighting system of a house).

installation phase: Period in the lifetime of a plant or system between delivery and commissioning of electrical equipment during which the installation work (erecting, installing, connecting, etc.) is done (see figure 1).

NOTE – It is considered, as far as the preparation of documents is concerned, that the lifetime begins when the plant or system is designed and planned.

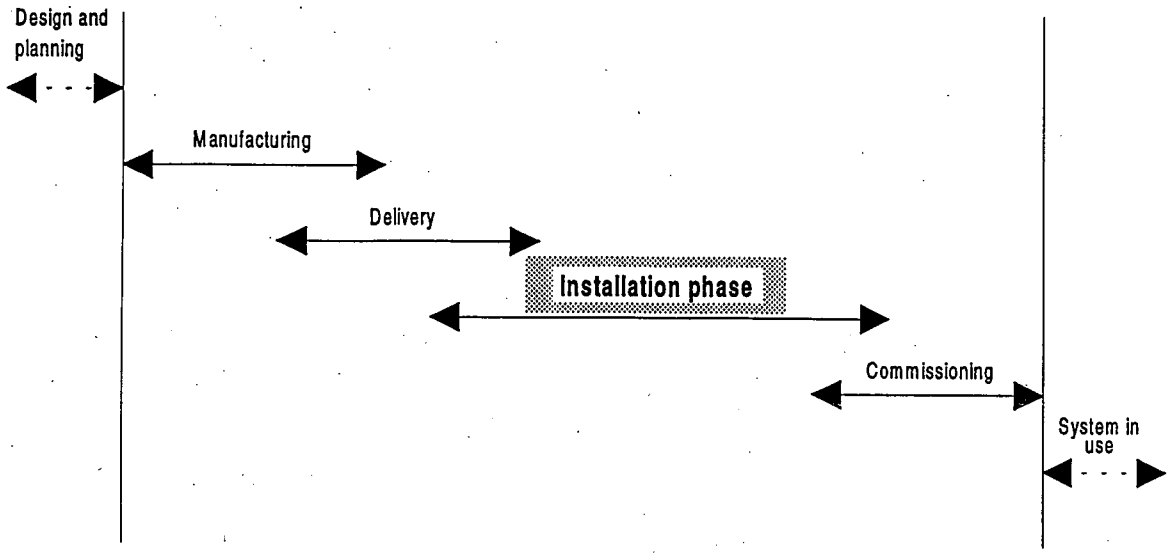

Figure 1 – Periods in the lifetime of a plant or system

installation documents: Documents mainly supporting the activities in relation to the installation phase of a project

Further definitions of terms used in this standard are presented in IEC 1082-1.

3 Electrical installations, documents and information

3.1 *Kinds of electrical installations*

Electrical installations can be divided into separate systems, e.g. lighting, power supply, etc. The systems can be installed in different objects like ships, buildings, mines, etc. (see table 1). The rules and principles presented in this standard apply basically to all systems and are not restricted to any object. Specific requirements for the different fields of technology or different branches are not treated.

NOTE – The definition of kinds of electrical installations or systems is not the subject of this standard.

Table 1 shows examples of systems and objects. Any combination of these is possible. The letters in the table represent examples of different installation projects.

Project A: Telecommunication and security system in a commercial building

Project B: Power and light system in the same commercial building as project A

Project C: Alarm system in a mine

Project D: Control and data system and air-conditioning system in an aircraft

Each system within one installation project should normally be documented separately, taking into account the complexity of the installation. Different systems may have different requirements concerning the information necessary for their installation. A combined presentation shall only be used if the different systems are clearly distinguishable from one another.

Table 1 – Examples of systems and objects

Object	System					
	Lighting	Power supply	Air conditioning *	Control and data	Telecom-munication	Security, alarm
Networks						
Residential buildings						
Commercial buildings	B	B			A	A
Factories						
Power stations						
Hospitals						
Ships						
Aircraft			D	D		
Trains						
Railways						
Roads / streets						
Airports						
Mines						C
Ports / harbours						
Off-shore platforms						
Spacecraft						

* Heating, ventilation and air conditioning systems

NOTES

1 A system may contain sub-systems (e.g. a heating, ventilation and air-conditioning system consists of a control and power supply system).

2 Objects may be subdivided (e.g. a railway in a mine).

3.2 *Installation documents*

Installation documents may serve as a basis for:

- installing conduits, ducts, racks, etc.;
- laying conductors and cables;
- placing equipment;
- interconnecting equipment;
- inspecting the installation;
- etc.

They may also serve as a basis for activities outside the installation phase, e.g.:

- specification and calculation of material and work;
- design of equipment supports (e.g. foundations);
- design of other systems.

In practice supplementary documents may be required for such purposes as manufacturing, operation or maintenance, but they also contain information of importance for installation.

Function-oriented diagrams and connection diagrams, tables and lists are covered in IEC 1082-2 and IEC 1082-3. Parts lists are under consideration as a separate part of this standard.