SLOVENSKI STANDARD
SIST EN 60998-1:1996

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Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements (IEC 998-1:1990, modified)

Connecting devices for low-voltage circuits for household and similar purposes -- Part 1: General requirements

Verbindungsmaterial für Niederspannungs-Stromkreise für Haushalt und ähnliche Zwecke -- Teil 1: Allgemeine Anforderungen

Dispositifs de connexion pour circuits basse tension pour usage domestique et analogue -- Partie 1: Règles générales

Ta slovenski standard je istoveten z: **EN 60998-1:1993**

ICS:

29.120.20	Spojni elementi	Connecting devices

SIST EN 60998-1:1996 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 60998-1

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Descriptors: Low voltage equipment, home electrical installations, connecting equipment, general characteristics, tests

English version

Connecting devices for low voltage circuits for household and similar purposes Part 1: General requirements (IEC 998-1:1990, modified)

Dispositifs de connexion pour circuits basse tension pour usage domestique et analogue
Première partie: Règles générales
(CEI 998-1:1990, modifiée)

Verbindungsmaterial für Niederspannungs-Stromkreise für Haushalt und ähnliche Zwecke
Teil 1: Allgemeine Anforderungen
(IEC 998-1:1990, modifiziert)

This European Standard was approved by CENELEC on 9 March 1993. 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

Foreword

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 998-1:1990 could be accepted without textual changes, has shown that some common modifications were necessary for the acceptance as European Standard.

The reference document, together with the common modifications prepared by CENELEC Reporting Secretariat SR 23F, was submitted to the CENELEC members for formal vote in August 1992.

The text of the draft was approved by CENELEC on 1993-03-09.

The following dates were fixed:

- latest date of publication of an identical national standard	(dop)	1994-03-01
- latest date of withdrawal of conflicting standards	(dow)	1997-03-01

For products which have complied with the relevant national standard before 1997-03-01 as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2002-03-01.

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annex A is informative.
Where reference is made to other international or harmonized standards, the edition of that standard quoted in annex ZA (normative) is applicable.

NOTE: In this document, the following print types are used:
- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type;
- instructions for modification of the reference document: **in bold type.**

Endorsement notice

The text of the International Standard IEC 998-1:1990 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

1 Scope

In the first paragraph, **replace** "IEC Publication 228" by "HD 383" and **delete** "and equivalent AWG conductors".

Add:

This standard does not apply to terminals designed to receive prepared conductors (soldering, eyelet, lug, etc.) nor to terminals designed to be assembled together with apparatus being subjected to strong vibrations.

2 Normative references

Replace the text of clause 2 by:

NOTE: Other international publications quoted in this standard are listed in annex ZA (normative).

6 Main characteristics

6.2 **Delete** the note.

6.3 **Replace** "above 40 °C" by "above 40 °C or below -5 °C".

7 Classification

7.5 **Replace** the text of this subclause by:

- devices without *T* marking for ambient temperatures not higher than 40 °C and not lower than -5 °C;
- devices with *T* marking for ambient temperatures higher than 40 °C or lower than -5 °C.

8 Marking

8.1 c) **Replace** by:

c) ambient temperature limits in degrees Celsius of use if higher than 40 °C or lower than -5 °C, expressed as a *T* marking (see 6.3)

8.3 **Replace** the explanation of *T* by:

T..... maximum ambient temperature of use in °C if higher than +40 °C (*T* marking) or minimum ambient temperature of use in -..°C if lower than -5 °C

Examples providing information about the temperature limits:

T 55	meaning:	-5 °C	up to	+55 °C
-25 °C	meaning:	-25 °C	up to	+40 °C
T 55 -25 °C	meaning:	-25 °C	up to	+55 °C

Delete the note.

COMMON MODIFICATIONS (End)

9 Protection against electric shock

Replace "IEC 529" by "EN 60529".

11 Construction

11.5 **Replace** the text of this subclause by:

Parts of terminals, mainly intended for carrying current, shall be of:

- copper, or

- an alloy containing at least 58 % copper for parts that are worked cold or at least 50 % copper for other parts, or

- other metal with surface protection offering a resistance to corrosion not less than that of copper and having mechanical properties at least equivalent.

Compliance is checked by inspection and by the relevant test specified in the relevant product standard (the tests of HD 323 are recommended).

11.6 **Replace** "IEC 228" by "HD 383" and **delete** "or equivalent AWG conductors".

12 Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water

12.3 **Replace** "Publication IEC 529" by "EN 60529".

17 Creepage distances, clearances and distances through sealing compound

Add at the end of the last paragraph:
... area tightened with the torque specified in the relevant Part 2.

Annex B

Delete.

Annex ZA (normative)

Other international publications quoted in this standard with the references of the relevant 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.

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

IEC Publication	Date	Title	EN/HD	Date
112	1979	Method for determining the comparative and the proof-tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
228 (mod)	1978	Conductors of insulated cables	HD 383 S2* + A1 + A2	1986 1989 1993
364	Series	Electrical installations of buildings	HD 384	Series
529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
664A	1981	Insulation coordination within low-voltage systems, including clearances and creepage distances for equipment - First supplement	-	-
695	-	Fire hazard testing	-	-
695-2-1	1980	Part 2: Test methods - Glow-wire test and guidance	HD 444.2.1. S1	1983

Other publications	
ISO 1456:1974	Metallic coatings - Electroplated coatings of nickel plus chromium
ISO 2039-2:1987	Plastics - Determination of hardness - Part 2: Rockwell hardness
ISO 2081:1986	Metallic coatings - Electroplated coatings of zinc on iron or steel
ISO 2093:1986	Electroplated coatings of tin - Specification and test methods

* Includes IEC 228A:1982

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI IEC 998-1

Première édition
First edition
1990-04

Dispositifs de connexion pour circuits basse tension pour usage domestique et analogue

Première partie: Règles générales

Connecting devices for low voltage circuits for household and similar purposes

Part 1: General requirements

Numéro de référence
Reference number
CEI/IEC 998-1: 1990

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTING DEVICES FOR LOW VOLTAGE CIRCUITS FOR HOUSEHOLD AND SIMILAR PURPOSES

Part 1: General requirements

FOREWORD

1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

This publication has been prepared by Sub-Committee 23F: Connecting devices, of IEC Technical Committee No. 23: Electrical accessories.

It forms the first edition of this publication and supersedes IEC 685-1 (1980).

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

Six Months' Rule	Report on Voting	Two Months' Procedure	Report on Voting
23F(CO)29	23F(CO)36	23F(CO)40	23F(CO)42

Full information on the voting for the approval of this publication can be found in the Voting Reports indicated in the above table.

In this publication, the following print types are used:

- requirements proper: in roman type;
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- explanatory matter: in smaller roman type.

Annexes A and B of this publication are informative.

CONNECTING DEVICES FOR LOW VOLTAGE CIRCUITS FOR HOUSEHOLD AND SIMILAR PURPOSES

Part 1: General requirements

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1 Scope

This standard applies to connecting devices as separate entities for the connection of two or more electrical copper conductors (complying with IEC Publication 228) rigid (solid or stranded) or flexible, having a cross-sectional area of 0,5 mm² up to and including 35 mm² and equivalent AWG conductors with a rated voltage not exceeding 1 000 V a.c. up to and including 1 000 Hz and 1 500 V d.c. where electrical energy is used for household and similar purposes.

Connecting devices complying with this standard shall not require the use of special tools, other than for twist-on connecting devices.

This standard contains the general requirements to be used together with the Parts 2, containing detailed particular requirements.

2 Normative references

The following standards contain provisions which, through reference in this text, form an integral part of this publication. At the time of publication, the editions indicated were valid. All standards are subject to revision, and product committees using this publication are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC publications quoted:

112 (1979): Method for determining the comparative and the proof-tracking indices of solid insulating materials under moist conditions.

228 (1978): Conductors of insulated cables.

364: Electrical installations of buildings.

529 (1989) Classification of degrees of protection provided by enclosures.

664A (1981): Insulation co-ordination within low-voltage systems, including clearances and creepage distances for equipment. First supplement.

695: Fire hazard testing.

695-2-1 (1980): Part 2: Test methods. Glow-wire test and guidance.