

SLOVENSKI STANDARD

SIST EN 61010-2- 020:1999/A1:1999

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julij 1999

Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 2-020: Particular requirements for laboratory centrifuges. Amendment A1 (IEC 61010-2-020:1992/A1:1996)

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ICS 19.080; 71.040.10

Referenčna številka
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Descriptors: Electrical equipment for measurement, electrical equipment for control, electrical equipment for laboratory use, laboratory centrifuges, safety requirements

English version

**Safety requirements for electrical equipment for measurement,
control and laboratory use**

**Part 2-020: Particular requirements for laboratory centrifuges
(IEC 1010-2-020:1992/A1:1996)**

Règles de sécurité pour appareils
électriques de mesure, de régulation
et de laboratoire

Partie 2-020: Prescriptions particulières
pour centrifugeuses de laboratoire
(CEI 1010-2-020:1992/A1:1996)

Sicherheitsbestimmungen für elektrische
Meß-, Steuer-, Regel- und Laborgeräte
Teil 2-020: Besondere Anforderungen

an Laborzentrifugen
(IEC 1010-2-020:1992/A1:1996)

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This amendment A1 modifies the European Standard EN 61010-2-020:1994; it 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 amendment 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 amendment 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 text of document 66/125/FDIS, future amendment 1 to IEC 1010-2-020:1992, prepared by IEC TC 66, Safety of measuring, control, and laboratory equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61010-2-020:1994 on 1996-03-05.

The following dates were fixed:

- latest date by which the amendment 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 amendment have to be withdrawn (dow) 1996-12-01

For products which have complied with EN 61010-2-020:1994 before 1996-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-12-01.

Endorsement notice

The text of amendment 1:1996 to the International Standard IEC 1010-2-020:1992 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
1010-2-020

1992

AMENDEMENT 1
AMENDMENT 1

1996-01

PUBLICATION GROUPÉE DE SÉCURITÉ
GROUP SAFETY PUBLICATION

Amendement 1

Règles de sécurité pour appareils électriques
de mesurage, de régulation et de laboratoire

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Partie 2-020:
Prescriptions particulières pour centrifugeuses
de laboratoire

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Amendment 1

Safety requirements for electrical equipment
for measurement, control and laboratory use

Part 2-020:
Particular requirements for laboratory centrifuges

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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FOREWORD

This amendment has been prepared by IEC technical committee 66: Safety of measuring, control, and laboratory equipment.

This part 2 is intended to be used in conjunction with IEC 1010-1. It was established on the basis of the first edition (1990), its amendment 1 (1991) and its amendment 2 (1995). Consideration may be given to future editions of, or amendments to, IEC 1010-1.

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

FDIS	Report on voting
66/125/FDIS	66/140/RVD

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

Page 9

1.1.1 Aspects excluded from the scope

Replace in the second line of the added second dash the word "interact" by the word "react".

1.1.2 Equipment excluded from the scope

In the added second dash, delete the words "within the scope of IEC 79".

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Page 11

3.1.103 LABORATORY CENTRIFUGE (also CENTRIFUGE)

Replace the text of the definition by the following new definition:

3.1.103 LABORATORY CENTRIFUGE (also CENTRIFUGE): Apparatus intended for laboratory use that applies a centrifuging effect to sample materials.

Add the following new definition:

3.1.104 DRIVE SYSTEM: All components of the CENTRIFUGE associated with the provision of torque to, or the rotational support of, the ROTOR ASSEMBLY.

Page 15

5.4.3 Equipment installation

Add, on page 17, the following new paragraph to the added eighth dash:

This switch is not required for LABORATORY CENTRIFUGES intended to be moved from place to place. These LABORATORY CENTRIFUGES shall be cord connected and weigh 18 kg or less.

Page 19

5.4.101 Hazardous substances

Renumber as 5.4.4.101 Hazardous substances

Replace in the second dash of the second paragraph the word "interact" by the word "react".

5.4.102 Cleaning and decontamination

Renumber as 5.4.5.101 Cleaning and decontamination

Insert the paragraph immediately following table 1A which commences "The following wording" after the first paragraph.

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Page 21

5.4.103 Effects of chemicals and environmental influences

Delete the second paragraph and add the following new note:

NOTE – The assessment may be based on existing data, for example as supplied by a materials supplier. The manufacturer may have to arrange for additional tests with regard to the intended use of the centrifuge.

Page 23

7.2.101 ROTOR ASSEMBLY access LID

Replace the title of this subclause by the following:

7.2.101 LID

Replace, on page 25, in the second line of the fifth paragraph and after the second dash of the same paragraph, the word "mains" by the word "motor".

Delete, in the third dash of the fifth paragraph, the words (such as may be obtained at 60 Hz, using a mains frequency-conditioned motor).

Page 27

7.3.101 *CENTRIFUGE movement during malfunction*

Replace, on page 29, the title of item b) of the conformity paragraph by the following:

b) rotor assembly disruption and/or drive system failure

Replace the last paragraph by the following new paragraph:

For these tests, the CENTRIFUGE is mounted on, or fixed to (as specified in the manufacturer's instructions for use), a worst case test surface selected according to the MCA considerations of item m) of 7.5.102).

Page 29

7.5 *Protection against expelled parts or projected parts*

Replace the text of the first dash of the third paragraph by the following:

– no parts or fragments of the ROTOR ASSEMBLY (other than those permitted according to 7.5.104) shall have completely penetrated the PROTECTIVE CASING. Any visible crack shall be examined to determine whether or not the PROTECTIVE CASING would have contained the ROTOR parts irrespective of their trajectory. A questionable result shall require the test to be repeated once only, and a further questionable result is considered to be failure.

Delete in the third line of the second dash of the third paragraph the word "linear".

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Page 35

7.5.103 *Testing of the PROTECTIVE CASING*

Replace the second sentence of the first paragraph by the following:

For each worst-case ROTOR ASSEMBLY selection in each MCA, determined according to 7.5 to 7.5.102, testing as necessary shall be carried out to prove the adequacy of the PROTECTIVE CASING, and show that it would have contained the ROTOR parts irrespective of their trajectory.

Delete at the end of the first line of the compliance paragraph the word "then".
