



SLOVENSKI STANDARD SIST EN 60745-2-12:2004

01-maj-2004

Nadomešča:
SIST HD 400.3K S1:1995

Ročna električna orodja - Varnost - 2-12. del: Posebne zahteve za vibratorje za beton (IEC 60745-2-12:2003)

Hand-held motor-operated electric tools - Safety -- Part 2-12: Particular requirements for concrete vibrators

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit -- Teil 2-12: Besondere Anforderungen für Innenrüttler
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Outils électroportatifs à moteur - Sécurité -- Partie 2-12: Règles particulières pour les vibreurs à béton
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Ta slovenski standard je istoveten z: EN 60745-2-12:2003

ICS:

25.140.20 Električna orodja Electric tools

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EUROPEAN STANDARD

EN 60745-2-12

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2003

ICS 25.140.20

Supersedes HD 400.3K S1:1981

English version

**Hand-held motor-operated electric tools –
Safety
Part 2-12: Particular requirements for concrete vibrators
(IEC 60745-2-12:2003)**

Outils électroportatifs à moteur –
Sécurité
Partie 2-12: Règles particulières
pour les vibreurs à béton
(CEI 60745-2-12:2003)

Handgeführte motorbetriebene
Elektrowerkzeuge –
Sicherheit
Teil 2-12: Besondere Anforderungen
für Innenrüttler
(IEC 60745-2-12:2003)

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This European Standard was approved by CENELEC on 2003-09-23. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 61F/511/FDIS, future edition 2 of IEC 60745-2-12, prepared by SC 61F, Safety of hand-held motor-operated electric tools, of IEC TC 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60745-2-12 on 2003-09-23.

This European Standard supersedes HD 400.3K S1:1981.

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) 2004-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-10-01

Other standards referred to in this European standard are listed in Clause 2. Clause 2 lists the valid edition of those documents at the time of issue of this EN.

This standard is divided into two parts:

Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;

Part 2: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This European Standard has been prepared under a mandate given to CEN and CENELEC by the European Commission and the European Free Trade Association and supports the essential health and safety requirements of the Machinery Directive.

Compliance with the clauses of Part 1 together with this Part 2 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

Warning: Other requirements and other EC Directives can be applicable to the products falling within the scope of this standard.

This standard follows the overall requirements of EN 292-1 and EN 292-2.

This Part 2-12 is to be used in conjunction with EN 60745-1:2003. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101.

NOTE In this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

Endorsement notice

The text of the International Standard IEC 60745-2-12:2003 was approved by CENELEC as a European Standard without any modification.

INTERNATIONAL STANDARD

IEC
60745-2-12

Second edition
2003-02

Hand-held motor-operated electric tools – Safety –

Part 2-12: Particular requirements for concrete vibrators

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS–
SAFETY –**
Part 2-12: Particular requirements for concrete vibrators

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 specifications, 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. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60745-2-12 has been prepared by subcommittee 61F: Safety of hand-held, motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 1982, of which it constitutes a technical revision.

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

FDIS	Report on voting
61F/511/FDIS	61F/522/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.

This Part 2-12 is to be used in conjunction with the third edition of IEC 60745-1: Safety of hand-held motor-operated electric tools – Part 1: General requirements. When this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

NOTE in this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101; additional annexes are lettered AA, BB, etc.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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

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

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HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS– SAFETY –

Part 2-12: Particular requirements for concrete vibrators

1 Scope

This clause of Part 1 is applicable except as follows:

1.1 Addition:

This standard applies to concrete vibrators.

2 Normative references

This clause of Part 1 is applicable.

3 Definitions

This clause of Part 1 is applicable, except as follows:

3.2.9 Replacement:

normal load

load obtained when the tool is operated continuously, the hose and vibrator bottle being attached to the tool as for normal use. During the operation the vibrator bottle is immersed centrally in a container filled with an amount of water corresponding to at least 50 times the volume of the vibrator bottle.

The dimensions of the container are such that the diameter is about 50 % of the height of the water inside the container.

The height of the container is such that no water can splash out during the test

Addition:

3.101

concrete vibrator

tool intended for compacting concrete. The active part (vibrator bottle) of the vibrator performs low-amplitude vibrations and is immersed into the mass of concrete to be vibrated. Concrete vibrators may be of one of the following designs:

- the motor and the vibrating mechanism are inside the vibrator bottle to which the part containing the mains switch is connected by means of a long flexible hose containing the interconnecting cable;
- the motor and the vibrating mechanism are inside the vibrator bottle to which a handle, comprising the part containing the mains switch, is fixed by means of a short rigid tube, these parts forming a constructional unit;
- the vibrator mechanism is only inside the vibrator bottle to which a separate portable unit, comprising the motor and the part containing the mains switch, is connected by means of a long flexible hose containing a flexible shaft

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable.

6 Void

7 Classification

This clause of Part 1 is applicable.

8 Marking and instructions

This clause of Part 1 is applicable.

9 Protection against access to live parts

This clause of Part 1 is applicable.

10 Starting

This clause of Part 1 is applicable, except as follows:

10.1 Addition:

The test is made at an ambient temperature of (10 ± 1) °C after the concrete vibrator has been kept at this temperature for at least 2 h.

11 Input and current

This clause of Part 1 is applicable.

12 Heating

This clause of Part 1 is applicable, except as follows:

12.4 Replacement:

The tool is operated at normal load for 30 min. The temperature rises are measured at the end of the 30 min.

13 Leakage current

This clause of Part 1 is applicable.

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