

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

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

Outils électroportatifs à moteur – Sécurité –
Partie 2-12: Règles particulières pour les vibreurs à béton

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FOREWORD

This amendment 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.

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

FDIS	Report on voting
61F/737/FDIS	61F/757/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.

With this amendment, this Part 2 is established on the basis of the fourth edition (2006) of IEC 60745-1, *Hand-held motor-operated electric tools – Safety – Part 1: General requirements*.

Main changes include editorial modifications to match with the fourth edition of IEC 60745-1 and clarifications in Annex K.

The committee has decided that the contents of this amendment and the base 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, [IEC 60745-2-12:2003/AMD1:2008](https://standards.iec.ch/catalog/standards/sist/89cfa366-27a0-414f-bb85-14a0ae53d051/iec-60745-2-12-2003-amd1-2008)
- withdrawn, <https://standards.iec.ch/catalog/standards/sist/89cfa366-27a0-414f-bb85-14a0ae53d051/iec-60745-2-12-2003-amd1-2008>
- replaced by a revised edition, or
- amended.

1 Scope

Replace the existing text of Clause 1 by the following:

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

Addition:

This standard applies to concrete vibrators.

3 Definitions

Change the title of Clause 3 to read:

3 Terms and definitions

Replace the existing text of 3.101 by the following:

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:

- a) the motor and the vibrating mechanism are inside the vibrator bottle to which the part containing the mains switch or a power converter and switch handle assembly is connected by means of a long flexible hose containing the interconnecting cable. The long flexible hose may be used as the handle (see Figure 101);
- b) only the vibrator mechanism is inside the vibrator bottle to which a separate portable unit, comprising the motor, the handle and the mains switch, is connected by means of a long flexible hose containing a flexible shaft (see Figure 102)

14 Moisture resistance

Replace the existing text of 14.1 by the following:

14.1 Replacement of the first paragraph:

For design a) as defined in 3.101, the enclosure of all parts and the cable entry shall be IPX7.

During the relevant test of this subclause, the part containing the switch or the power converter and switch handle assembly is placed in the normal position of use, the hose, if any, being attached correctly to it.

For design b) as defined in 3.101, the motor unit shall be IPX4.

During the relevant test of this subclause, the motor unit is placed in the most unfavourable position occurring during normal use.

The isolating transformer or the motor-generator shall be IPX4.

18 Abnormal operation

Replace the existing text of 18.12 by the following:

18.12 This subclause is not applicable.

Replace the last paragraph of 18.101 by the following:

After the concrete vibrator has been allowed to cool down to approximately room temperature, it shall withstand an electric strength test as specified in 15.2. For concrete vibrators having the motor in the bottle, the test voltage across basic insulation is, however, reduced to 1 000 V for tools other than those of class III.

20 Mechanical strength

Add the following new subclause:

20.5 This subclause is not applicable.

Replace the last paragraph of 20.101 by the following:

Moreover, the concrete vibrator shall withstand an electric strength test as specified in 15.2. For concrete vibrators having the motor in the bottle, the test voltage across basic insulation is, however, reduced to 1 000 V for tools other than those of class III.

21 Construction

Add the following new subclause:

21.32 This subclause is not applicable.

24 Supply connection and external flexible cords

Replace the existing text of 24.4 by the following:

24.4 Modification:

Instead of the first paragraph, the following applies:

Supply cords shall be at least heavy polychloroprene sheathed flexible cable (60245 IEC 66).

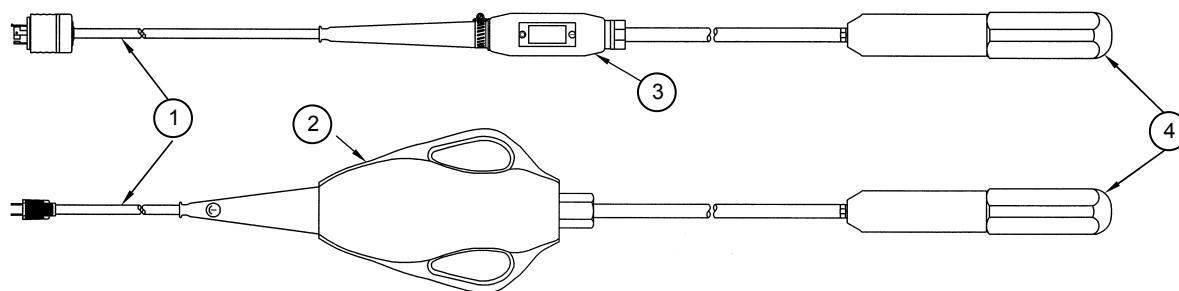
Replace the existing text of 24.101 by the following:

24.101 The supply cable attached to the part containing the mains switch shall have a length:

- of at least 5 m for designs a) as defined in 3.101;
- of not more than 0,5 m or of at least 5 m for design b) as defined in 3.101.

Compliance is checked by measuring the length of the cable, including any cord guard, between the plug and the point where the cable enters the part containing the mains switch.

Add the following figures:

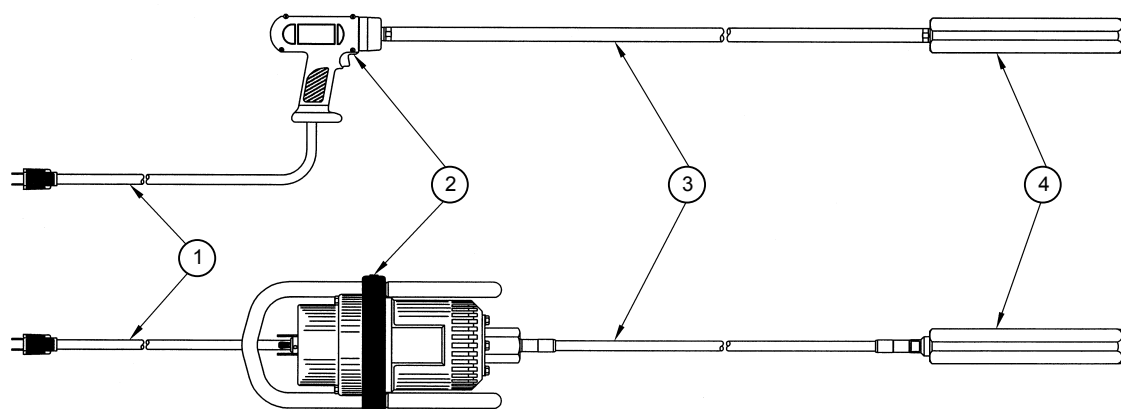


IEC 739/08

Key

- 1 electric supply cable
- 2 power converter and switch with handle
- 3 part containing the mains switch
- 4 vibrator bottle with motor

Figure 101 – Typical design a) of a concrete vibrator



IEC 740/08

Key

- 1 electric supply cable
- 2 motor unit with switch
- 3 flexible shaft
- 4 vibrator bottle

**Figure 102 – Typical design b) of a concrete vibrator
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Annexes

<https://standards.iteh.ai/catalog/standards/sist/89cfa366-27a0-414f-bb85-14a0ac53d05/iec-60745-2-12-2003-amd1-2008>

Replace the existing texts of Annexes K and L by the following:

**Annex K
(normative)**

Battery tools and battery packs

K.1 Addition:

All clauses of this Part 2 apply unless otherwise specified in this annex.

K.10.1 This subclause of Part 2 is not applicable.

K.12.4 This subclause of Part 2 is not applicable.

K.14.1 This subclause of Part 2 is not applicable.

K.17.2 This subclause of Part 2 is not applicable.

K.18.101 This subclause of Part 2 is not applicable.

K.20.3 This subclause of Part 2 is not applicable.

K.20.101 This subclause of Part 2 is not applicable.

K.21.16 This subclause of Part 2 is not applicable.

K.24.4 This subclause of Part 2 is not applicable.

K.24.101 This subclause of Part 2 is not applicable.

Annex L
(normative)

**Battery tools and battery packs provided with mains
connection or non-isolated sources**

L.1 *Addition:*

All clauses of this Part 2 apply unless otherwise specified in this annex.

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