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AMENDMENT 1
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Amendment 1

**Electric irons for household or similar use –
Methods for measuring performance**

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PRICE CODE

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For price, see current catalogue

FOREWORD

This amendment has been prepared by subcommittee 59L: Small household appliances, of IEC technical committee 59: Performance of household electrical appliances.

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

FDIS	Report on voting
59L/22/FDIS	59L/24/RVD

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

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- withdrawn,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

Page 6

1 Scope

Add, in the third paragraph, the following as the 3rd dashed item:

- vented steam irons with motor pump;

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3 Terms and definitions

Add, on page 8, the following new definition:

3.5.6

vented steam iron with motor pump

vented steam iron in which the water is pumped from the internal water reservoir to the steam chamber by means of an (electric) motor pump

Page 9

4 Measurements for various types of irons

Table 1 – Measurements of various types of irons

Amend the heading of the fourth column of Table 1 to read:

Thermostatic steam irons and vented steam irons with a motor pump.

Page 10

5 General conditions for measurements

Add, on page 11, the following new subclause:

5.10 Irons with additives

If the manufacturer requires the use of specific additives as an integral part of the functioning of the iron, then the iron shall be tested using the additives.

Page 16

9 Measurements concerning steaming operation

9.2 Measurements of steaming time, steaming rate and water emission rate

9.2.1 For vented steam irons

Add, on page 17, after the 3rd paragraph, the following sentence:

For vented steam irons with motor pump, the motor pump may be controlled by external means during the test.

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11 Measurement of input power and energy consumption

11.2 Measurement of energy consumption

Replace "Under consideration" by the following:

11.2.1 Preparation of the test cloth

Samples of textile material composed of cotton are prepared according to 10.1.1. The test cloth is conditioned according to 10.1.2.

The samples have dimensions of 600 mm x 1 500 mm with the sides parallel to the warp. The samples are cut using pinking scissors, and maintained in a dry atmosphere at a temperature of 20 °C ± 5 °C for at least 48 h.

Each sample is subdivided into 5 strips of 300 mm (not cut, only marked with a pen).

NOTE Dimensions of standardized ironing-board: 650 mm x 350 mm.

11.2.2 Measurement of the energy consumed during heating-up operation

11.2.2.1 For dry irons

The iron is connected to a suitable energy meter, capable of measuring to an accuracy of ± 1 %. The thermostat, if any, is set so that the mean sole-plate temperature of $190\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ is reached.

The energy consumed during this heating-up interval is recorded as E_1 in kWh.

11.2.2.2 For vented steam irons

The iron is connected to a suitable energy meter, capable of measuring to an accuracy of ± 1 %. The water reservoir is filled with distilled water having a temperature of $20\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ up to the capacity specified by the manufacturer and then the iron is placed on its stand or in its upright position. The thermostat is set so that the mean sole-plate temperature of $190\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ is reached.

For irons with a separate water reservoir, the reservoir is filled up to the capacity specified by the manufacturer.

The energy consumed during this heating-up interval is recorded as E_1 in kWh.

11.2.2.3 For pressurized steam irons

The iron is connected to a suitable energy meter, capable of measuring to an accuracy of ± 1 %. The boiler is filled with distilled water having a temperature of $20\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ up to the rated capacity and then placed on its stand.

The thermostat of the iron is set so that the mean sole-plate temperature of $190\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ is reached, any setting of the boiler shall be set at the maximum.

The energy consumed during this heating-up interval is recorded as E_1 in kWh.

11.2.3 Measuring of energy consumed during an ironing operation

NOTE The results of energy consumption test should only be used in conjunction with assessment of smoothing according to Clause 10.

11.2.3.1 For all irons

For vented and for pressurized steam irons the steaming regulator, if any, is set at the maximum setting.

The iron is connected to a suitable energy meter, capable of measuring to an accuracy of ± 1 %.

The test cloth with dimensions of 600 mm x 1 500 mm and marked according to 11.2.1 is placed on the ironing board, see Annex B.

The first marked strip of the cloth is ironed for 20 s (in case of pressurized steam irons 5 s with steam and 15 s without steam), a break of 10 s follows (one cycle). This procedure is repeated with the next 5 strips and then started again from the beginning, with the same cloth. This procedure is now continued for exactly 10 min.

The energy used for this operation is recorded as E_2 in kWh.

11.2.3.2 Calculation of the total energy consumed for the ironing process

The energy consumption for the iron is reported as the energy consumed during one hour of the ironing process plus the energy consumption during heat-up time, in kWh.

The energy consumed in one hour is then 6 times the value measured after 10 min, i.e. $E_3 = 6 \times E_2$ kWh.

The total energy consumed during an ironing process is therefore:

$$E_{\text{total}} = E_1 + E_3 \text{ kWh}$$

Add, on page 23, the following new subclause:

11.3 Ironing efficiency

(Under consideration)

Page 26

14 Determination of total steaming time for hard water

Add the following sentence after the 3rd paragraph on page 27:

For **vented steam irons with motor pump**, the motor pump has to be switched off in the upright position.

Page 28

16 Information at the point of sale

In the first sentence, change “should” to “shall”, and add “if applicable” at the end of the sentence.

Replace the existing items by the following:

- a) type of iron (dry iron, steam iron, **vented steam iron with motor pump**, irons with steam generator/boiler, etc.)
- b) voltage/voltage range (V);
- c) frequency (Hz);
- d) power input (W);
- e) cord length (m);
- f) weight (g) (the iron without supply cord);

- g) weight (g) (the whole appliance, e.g. including supply cord, water container/boiler);
- h) sole-plate material and coating;
- i) scratch resistance (excellent, good, poor);
- j) water to be used (tap water up to a hardness as declared by the manufacturer, dematerialized water);
- k) use of specific additives
- l) steaming rate (g/min)
- m) shot of steam, (g/shot)
- n) additional functions/features, for example:
 - spray;
 - anti-scale device;
 - drip-stop;
 - auto-shut off;
 - detachable water tank.

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