

INTERNATIONAL STANDARD

IEC
61855

First edition
2003-01

Household electrical hair care appliances – Methods of measuring the performance

*Appareils électrodomestiques destinés aux soins
des cheveux –
Méthodes de mesure de l'aptitude à la fonction*



Reference number
IEC 61855:2003(E)

Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Further information on IEC publications

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology. Information relating to this publication, including its validity, is available in the IEC Catalogue of publications (see below) in addition to new editions, amendments and corrigenda. Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is also available from the following:

- **IEC Web Site** (www.iec.ch)

- **Catalogue of IEC publications**

The on-line catalogue on the IEC web site (http://www.iec.ch/searchpub/cur_fut.htm) enables you to search by a variety of criteria including text searches, technical committees and date of publication. On-line information is also available on recently issued publications, withdrawn and replaced publications, as well as corrigenda.

- **IEC Just Published**

This summary of recently issued publications (http://www.iec.ch/online_news/justpub/jp_entry.htm) is also available by email. Please contact the Customer Service Centre (see below) for further information.

- **Customer Service Centre**

If you have any questions regarding this publication or need further assistance, please contact the Customer Service Centre:

Email: custserv@iec.ch
Tel: +41 22 919 02 11
Fax: +41 22 919 03 00

INTERNATIONAL STANDARD

IEC 61855

First edition
2003-01

Household electrical hair care appliances – Methods of measuring the performance

*Appareils électrodomestiques destinés aux soins
des cheveux –
Méthodes de mesure de l'aptitude à la fonction*

© IEC 2003 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

S

For price, see current catalogue

CONTENTS

FOREWORD	3
INTRODUCTION	4
1 Scope	5
2 Normative references.....	5
3 Definitions	5
4 List of measurements and tests	6
5 General conditions for measurements	7
5.1 General	7
5.2 Test room	7
5.3 Power supply.....	7
5.4 Steady conditions	7
5.5 Thermocouples	7
6 Measurements	7
6.1 Mass of the appliance.....	7
6.2 Length of the flexible cord.....	8
6.3 Power Input	8
6.4 Heating-up times	8
6.5 Temperatures	8
6.6 Air flow of hand-held hairdryers and hairstyling appliances with warm air	10
6.7 Drying rate.....	10
6.8 Attachment of accessories	12
6.9 Drop test.....	12
7 Measurement of airborne acoustical noise	13
8 Features	13
8.1 Control settings	13
8.2 Accessories	13
8.3 Additional features.....	13
9 Instructions for use	13
Annex A (informative) Additional information	19
Annex B (informative) Test Cloth.....	20
Bibliography.....	21
Figure 1 – Graphical derivation of distance D_d	11
Figure 2 – Temperature measuring device (based on UL 859).....	14
Figure 3 – Attachment of the thermocouples	15
Figure 4 – Distance for temperature measurement	16
Figure 5 – Curling appliance, position of the measuring points	17
Figure 6 – Test equipment for measuring the drying rate	18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD ELECTRICAL HAIR CARE APPLIANCES –
METHODS FOR MEASURING THE PERFORMANCE**

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 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 61855 has been prepared by IEC technical committee 59: Performance of household electrical appliances.

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

FDIS	Report on voting
59/307/FDIS	59/318/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.

The committee has decided that the contents of this publication will remain unchanged until 2005-04. 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.

INTRODUCTION

This standard does not deal with hair care appliances with radiant heating or with helmet dryers (see Scope) for the following reasons:

- the test methods are likely to be complicated and expensive and they might not be sufficiently repeatable;
- suitable and or proven test methods are not known at present;
- developing of test methods for these appliances will incur considerable costs;
- the market shares of these appliances are rather small.

National Committees who consider that hair care appliances with radiant heating and helmet dryers should be included into maintenance activities are requested to submit proposals suitable for the corresponding test method.

HOUSEHOLD ELECTRICAL HAIR CARE APPLIANCES – METHODS FOR MEASURING THE PERFORMANCE

1 Scope

This International Standard applies to electrical appliances for household and similar use for drying and styling hair (including their accessories).

This standard defines the main performance characteristics that are of interest to the user and specifies methods of measuring these characteristics.

The measuring procedures are developed for comparable tests.

This standard does not specify requirements for performance.

This standard does not cover hair care appliances with radiant heating, helmet-type dryers or cutting devices.

NOTE 1 This standard does not deal with safety requirements (IEC 60335-2-23).

NOTE 2 Due to the influence of environmental conditions, variations in time, origin of test materials and proficiency of the operator, most of the described test methods will give more reliable results when applied for comparative testing of a number of appliances at the same time, in the same laboratory and by the same operator.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60584-2, *Thermocouples – Part 2: Tolerances*

IEC 60704-2-9, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-9: Particular requirements for electrical hair care appliances*¹

IEC 61254, *Electric shavers for household use – Methods for measuring the performance*

IEC/TR 61592, *Household electrical appliances – Guidelines for consumer panel testing*

ISO 2267:1986, *Surface active agents – Evaluation of certain effects of laundering- Methods of preparation and use of unsoiled cotton control cloth*

3 Definitions

For the purpose of this document, the following definitions apply.

3.1

hairstyling appliance

appliance for styling or curling hairs

NOTE Hairstyling appliances may comprise brushes and combs.

¹ To be published.