

REPORT No 11354

Date of issue: September 10, 2025

Status: FINAL REPORT

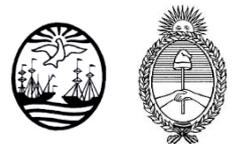
IEC 60335-2-23

SAFETY - APPLIANCES FOR SKIN OR HAIR CARE

Program: SQ-7029.V4

This document is issued by the Company subject to its Terms and Conditions, available on request or accessible at <https://www.ptsouthquality.com/terms-and-conditions>. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Copyright © 2024 South Quality, Buenos Aires, ARGENTINA



Prepared by:	Reviewed by:	Approved by:
Valentyn Kravchenko Assistant Technician	Eng. Esteban Di Marco Electromechanical expert	Eng. Emiliano Medina Quality Assurance Lead

TABLE OF CONTENTS

1. FOREWORD	3
2. ORGANIZATION	3
3. OBJECTIVE	3
4. PARTICIPANT	3
5. HOMOGENEITY	4
6. SAMPLE INFORMATION	4
7. IMAGES	5
8. ASSIGNED VALUES	5
9. PARTICIPANT RESULTS	6
10. STATISTICS	6
11. EVALUATION OF PERFORMANCE	7
12. CONCLUSIONS	7
APPENDIX	
PARTICIPANT RESULTS (Results form)	8

1. FOREWORD

This report summarizes the results of the **SQ-7029.V4** proficiency testing program on the determination of safety of household appliance. This program is conducted in a bilateral format, following the A.3.3 classification of the ISO 17043 standard ("Split-sample testing schemes").

South Quality conducted the testing program in August 2025 with the aim of assessing the laboratory's ability to competently perform the designated tests.

2. ORGANIZATION

Program Coordinator: Eng. Esteban Di Marco
 Assistant Technician: Valentyn Kravchenko
 Statistic: Lic. Manuel Tozaki
 Supervision: Eng. Emiliano Medina

3. OBJECTIVE

The objective of this proficiency testing program is to determine the power input and current of a household appliance, using the following standards:

Standard
IEC 60335-1: 2020 (Clause 10) + IEC 60335-2-23: 2016 + AMD 1: 2019

To verify this, batches of hair dryer samples have been selected.

Participants in this program have not been previously informed about the expected values or value ranges of the samples they receive.

4. PARTICIPANT

Company: **INDUSTRIAL RESEARCH INSTITUTE**
 Laboratory: **Electrical Laboratory**
 Country: Lebanon
 Client ID: S342
 Contact person: Bilal Houssein
 Division Head
elec@iri.org.lb

5. HOMOGENEITY

Several batches were prepared identically by the staff at South Quality.

Subsequently, a homogeneity study was conducted with an ISO 17025 accredited laboratory.

The control process followed ISO Guide 35: 2017, clause 7.4.1.2. Stratified random sampling was employed, and samples were chosen using random number generation software.

The results of this test are presented below:

Size of each batch: **20 units**

Tested samples from each batch: **3 units**

DETERMINATION	HOMOGENEITY OF RESULTS IN THE ANALYZED SAMPLES		
	BATCH: LEA3040	BATCH: LEA3041	BATCH: LEA3042
POWER INPUT (Cl. 10)	YES	YES	YES

Samples for this program are taken from the selected batch identified as **LEA3042**.

For the indicated batch, the values determined in the homogeneity study are utilized as the assigned values.

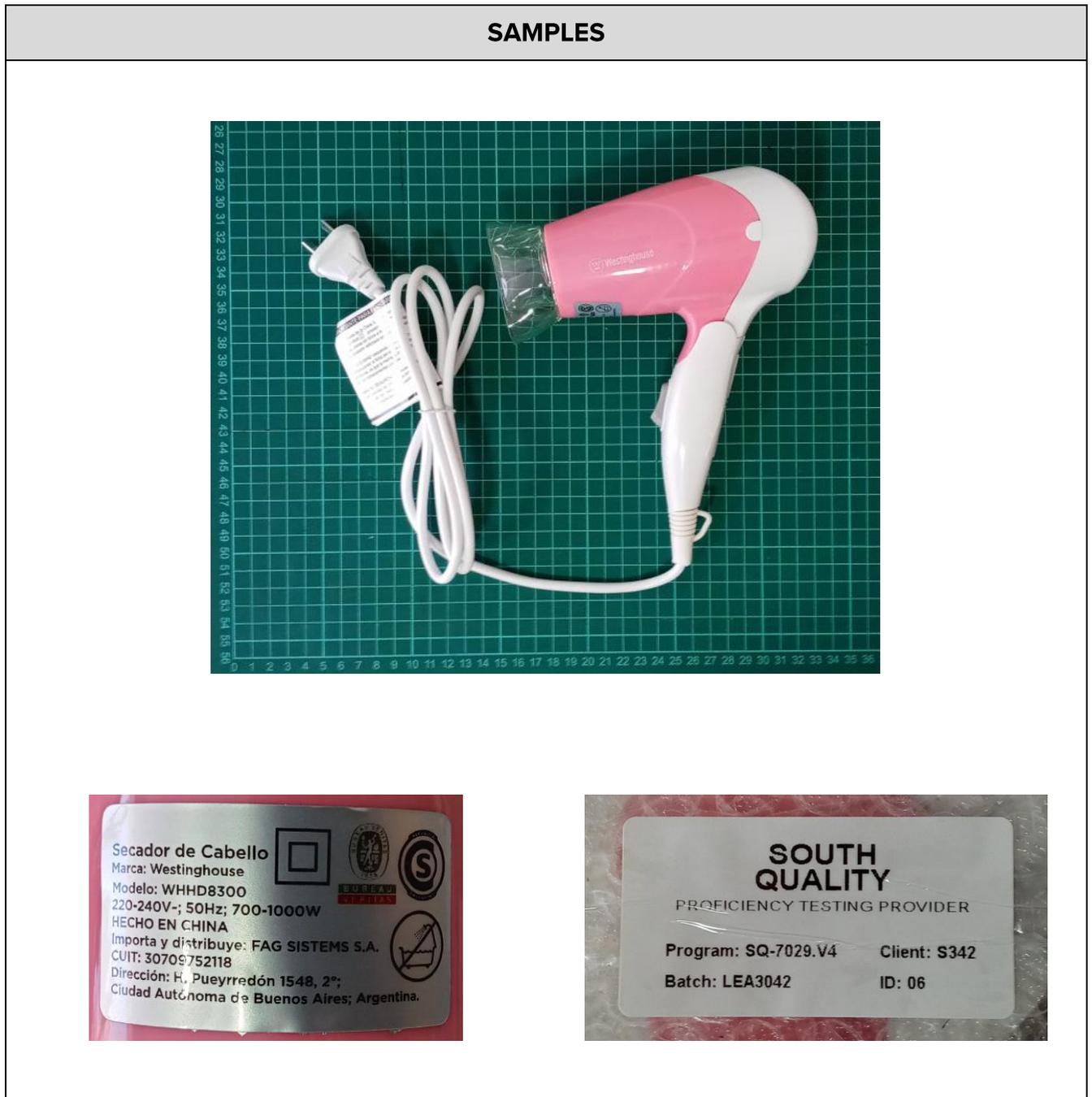
The analysis of the test data indicated that the selected samples exhibited sufficient homogeneity for the program. Therefore, the results of participants identified as outliers cannot be attributed to sample variability.

6. SAMPLE INFORMATION

The following sample was sent for testing:

Batch:	LEA3042
Sample ID:	06
Characteristics:	Hair dryer - 220-240V / 50Hz / 700-1000W Trademark: WESTINGHOUSE Model: WHHD8300

7. IMAGES



8. ASSIGNED VALUES

BATCH: LEA3042		
VOLTAGE SUPPLY	POWER INPUT	SD
220V	872 W	5.4 W
240V	1025 W	7.2 W

9. PARTICIPANT RESULTS (SEE APPENDIX)

CODE: LEA3042-06	
VOLTAGE SUPPLY	POWER INPUT
220V	865 W
240V	1023 W

10. STATISTICS

The results must be treated as quantitative.

For quantitative results the comparison is made according B.3.1.3 of ISO 17043 and the appropriate technique is to compare participant results with the assigned values. The results can be compare using percent difference z **score**.

$$z = \frac{x - X}{\hat{\sigma}}$$

- x is the participant's result
- X is the assigned value
- $\hat{\sigma}$ is the standard deviation

The performance evaluation of each sample is carried out with the following criteria:

- $|z| \leq 2.0$ indicates “satisfactory” performance and generates no signal;
- $2.0 < |z| < 3.0$ indicates “questionable” performance and generates a warning signal;
- $|z| \geq 3.0$ indicates “unsatisfactory” performance and generates an action signal;

11. EVALUATION OF PERFORMANCE

VOLTAGE SUPPLY	BATCH: LEA3042		z score	PERFORMANCE RESULT
	PARTICIPANT RESULT	ASSIGNED VALUE		
220 V	865 W	872 W	1.3	SATISFACTORY
240 V	1023 W	1025 W	0.3	SATISFACTORY

12. CONCLUSIONS

The overall performance of this **SQ-7029.V4** program from the participant laboratory **INDUSTRIAL RESEARCH INSTITUTE - Electrical Laboratory**, is **SUFFICIENT** based on expected results.

The criteria used for evaluating the overall performance are as follows:

- **SUFFICIENT** performance: No unsatisfactory/questionable results were obtained.
- **ALMOST SUFFICIENT** performance: No unsatisfactory results were obtained, but one questionable result was found.
- **INSUFFICIENT** performance: An unsatisfactory result or two questionable results were obtained.

APPENDIX

PARTICIPANT RESULTS

(Results form)



INSTRUCTIONS

PROGRAM:	Safety Appliances for skin or hair care
CODE:	SQ-7029
VERSION:	4
STANDARD:	IEC 60335-2-23
COORDINATOR:	Eng. Esteban Di Marco (edimarco@ptsouthquality.com)

1 - General

This document serves as a guide for managing the results of the **SQ-7029.V4** program.

2 - Standard

IEC 60335-2-23: 2016 + AMD 1: 2019

3 - Tests involved

TEST
Determination of safety of a household appliance - Power input and current (Cl. 10) -

4 - Samples

CODE	SAMPLE	QUANTITY
LEA3042-06	Hair dryer - 220-240V / 50Hz / 700-1000W Trademark: WESTINGHOUSE Model: WHHD8300	1

5 - Notes

- a) Being a bilateral program, there is no deadline for submitting results.
- b) The participant must submit the results using the usual report employed by their laboratory.
- c) The samples are to be handled as routine lab samples, with all testing, documentation, and reporting adhering to **IEC 60335-2-23**.
- d) Samples must be retained until the end of the program, which concludes with the submission of the final report.
- e) To review the results, test images would be appreciated. Images can be attached at the end of this document or sent by email.

PHOTOGRAPHS



1

Industrial Research Institute

Laboratory Report

ILC Partner	South Quality
Program Name	SQ-7029 V4

Date of item's reception	11 / 08 / 2025
Date or period of tests	11 - 18 / 08 / 2025
Date of report issue	18 / 08 / 2025

Product description	Hair Dryer	
Item reference (If any)	S/N: DNR108011293	
Manufacturer, brand name or trademark	Westinghouse	Country of origin: China
Reference, model	WHHD8300	
Product category	Household and similar electrical appliances	

Testing according to the requirements of :	IEC 60335-1
General comments:	

Tested by (+ Signature):	Ricardo Shaaya Laboratory Technician	
Verified by (+ Signature):	Eng. Ahmad Hassan Electrical Laboratory Head	
Approved by (+ Signature):	Eng. Bilal Houssein Electrical and Renewable Energy Division Head	

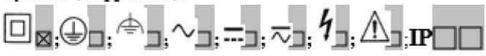
IRI Bldg. – Lebanese University Campus
 Hadath (Baabda) – Lebanon
 Tel/Fax: +961 5 467831/2/3/4/5/6/7 – Mobile: +961 3 286340
 P.O.Box: 11-2806 Beirut – e-mail: info@iri.org.lb – <http://www.iri.org.lb>



Industrial Research Institute

2

1

Test Description	Clause	Result																																								
Classification	6	Safety Classification of the apparatus: Class II																																								
Marking & instructions	7	<p>Brand Name: Westinghouse Model: WHHD8300 Voltage: 220 - 240V Frequency: 50 Hz Current: - Or Power: 700 - 1000W</p> <table border="1"> <tr> <td>Instruction Manual: <input checked="" type="checkbox"/> booklet <input type="checkbox"/> CD <input type="checkbox"/> website Language: English + Spanish</td> <td>On the product: Language: Spanish</td> </tr> </table> <p>Symbols (if applicable): </p> <p>AC/DC Adaptor included? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Powered by batteries? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Size: - Voltage: -</p>	Instruction Manual: <input checked="" type="checkbox"/> booklet <input type="checkbox"/> CD <input type="checkbox"/> website Language: English + Spanish	On the product: Language: Spanish																																						
Instruction Manual: <input checked="" type="checkbox"/> booklet <input type="checkbox"/> CD <input type="checkbox"/> website Language: English + Spanish	On the product: Language: Spanish																																									
Power input & current	10	<table border="1"> <thead> <tr> <th>Voltage:</th> <th>Input power (W)</th> <th>readings</th> <th>Average</th> <th>Current (A)</th> <th>readings</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td rowspan="3">220V</td> <td rowspan="3">Input power (W)</td> <td>865</td> <td rowspan="3">865</td> <td rowspan="3">Current (A)</td> <td>3.95</td> <td rowspan="3">3.95</td> </tr> <tr> <td>865</td> <td>3.95</td> </tr> <tr> <td>865</td> <td>3.95</td> </tr> <tr> <td rowspan="3">230V</td> <td rowspan="3">Input power (W)</td> <td>936</td> <td rowspan="3">936</td> <td rowspan="3">Current (A)</td> <td>4.11</td> <td rowspan="3">4.11</td> </tr> <tr> <td>936</td> <td>4.11</td> </tr> <tr> <td>936</td> <td>4.11</td> </tr> <tr> <td rowspan="3">240V</td> <td rowspan="3">Input power (W)</td> <td>1023</td> <td rowspan="3">1023</td> <td rowspan="3">Current (A)</td> <td>4.28</td> <td rowspan="3">4.28</td> </tr> <tr> <td>1023</td> <td>4.28</td> </tr> <tr> <td>1023</td> <td>4.28</td> </tr> </tbody> </table>	Voltage:	Input power (W)	readings	Average	Current (A)	readings	Average	220V	Input power (W)	865	865	Current (A)	3.95	3.95	865	3.95	865	3.95	230V	Input power (W)	936	936	Current (A)	4.11	4.11	936	4.11	936	4.11	240V	Input power (W)	1023	1023	Current (A)	4.28	4.28	1023	4.28	1023	4.28
Voltage:	Input power (W)	readings	Average	Current (A)	readings	Average																																				
220V	Input power (W)	865	865	Current (A)	3.95	3.95																																				
		865			3.95																																					
		865			3.95																																					
230V	Input power (W)	936	936	Current (A)	4.11	4.11																																				
		936			4.11																																					
		936			4.11																																					
240V	Input power (W)	1023	1023	Current (A)	4.28	4.28																																				
		1023			4.28																																					
		1023			4.28																																					

Hamza IS

IRI Bldg. - Lebanese University Campus
 Hadath (Baabda) - Lebanon
 Tel/Fax: +961 5 467831/2/3/4/5/6/7 - Mobile: +961 3 286340
 P.O.Box: 11-2806 Beirut - e-mail: info@iri.org.lb - <http://www.iri.org.lb>

----- END OF REPORT -----