



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 38610-2020

**Electric clothes washer-dryers for household use - Methods for
measuring the performance**

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Table of Contents

Foreword	3
1 Scope	4
2 Normative References	4
3 Terms, Definitions and Symbols	5
4 Requirements	7
5 Test Conditions, Materials and Apparatus	7
6 Preparation before the Test	7
7 Performance Test - General Requirements	8
8 Performance Test	8
9 Performance Estimation	10
10 Data to be Reported	12
Appendix A (Normative) Splitting of Basic Load	13
Appendix B (Informative) Data Form to be Reported	15

1 Scope

The test methods specified in this Standard are applicable to electric clothes washer-dryers for household use for the testing of washing and drying fabrics. This Standard does not apply to testing individual washing or drying functions.

The purpose of this Standard is to express and define the main performance parameters of the electric clothes washer-dryers for household use that consumers are concerned about, and to describe the standard test methods for these performance parameters.

NOTE: The electric clothes washer-dryers for public use in apartments or laundry rooms and similar places are also within the scope of this Standard. This Standard does not apply to commercial electric clothes washer-dryers.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 20292-2019 Methods for Measuring the Performance of Tumble Dryers for Household Use (IEC 61121:2012, IDT)

IEC 60456:2010 Clothes Washing Machines for Household Use - Methods for Measuring the Performance

IEC 60704-2-4 Household and Similar Electrical Appliances - Test Code for the Determination of Airborne Acoustical Noise - Part 2-4: Particular Requirements for Washing Machines and Spin Extractors

IEC 60704-2-6 Household and Similar Electrical Appliances - Test Code for the Determination of Airborne Acoustical Noise - Part 2-6: Particular Requirements for Tumble Dryers

ISO 80000-1:2009 Quantities and Units - Part 1: General

8.3.2 Washing cycle The test shall meet the relevant requirements of IEC 60456:2010.

8.3.3 Drying cycle

8.3.3.1 General requirements The basic load mass after adjustment is recorded as W_0 .

The washing cycle is carried out in accordance with the requirements of 8.1.

Unless there are other requirements, the basic load shall be dried to the nominal final target moisture content of 0% in accordance with the requirements of Table 6 in GB/T 20292-2019.

The measurement shall be carried out in accordance with 8.2.2 of GB/T 20292-2019 and be consistent with the relevant requirements of the manufacturer's instructions for use.

For the washer-dryers with automatic drying programs (continuous and interrupted), the program that can achieve the final target moisture content value shall be selected. For washer-dryers without an automatic drying program (continuous and interrupted), the timer shall be set to obtain the final target moisture content given above. Determine the time requirements by continuously monitoring the drying process, which can be determined by pre-testing.

8.2.5 in IEC 60456:2010 and 8.2.5 in GB/T 20292-2019 use the final moisture content u_f defined by Formula (2) to determine the validity of the testing cycle. There is no standard for judging whether the average residual moisture content of a series of tests is valid.

For a certain series of tests, it is not appropriate to change the setting or control (automatic or non-automatic) of the final moisture content. Only when the final moisture content control is not reached, a time-controlled drying program can be added.

If at the end of the program, the final moisture content is still no lower than the upper limit of the allowable moisture content range, a time-controlled drying program can be added, but it shall be no less than 20min. Additional time shall be recorded in the report.

The duration of the program (including cooling in the program) and the total electricity and water consumption during this period shall be recorded.

8.3.3.2 Process for interrupted operation cycle When the washing cycle is over, immediately remove the soiled cloth from the load while splitting the test load into two parts. Between the washing cycle and the drying cycle, the test load shall be always kept in a plastic bag.

In this case, all basic load fabrics shall be marked before the start of the washing cycle in order to determine which part load each fabric belongs to. Throughout the series of tests, the load

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