TEST REPORT

COMMISSION REGULATION (EU) 2023/2533 of 17 November 2023 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble dryers

Report Number. ..... :	4927616.50
Prepared by (name + signature) ..... :	Elvis Chen
Approved by (name + signature)..... :	Jacky Zhang
Date of issue ..... :	2024-12-25
Total number of pages	28 pages
Testing Laboratory..... :	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Address ..... :	Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China
Applicant's name..... :	Guangdong Welly Electrical Appliances Co.,Ltd
Address ..... :	Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province, P. R. China
Test specification:	
Standard..... :	EN 61121:2013, EN 61121:2013/A11:2019, EN 50564:2011, EN IEC 60704-1:2021, EN 60704-2-6:2012, EN 60704-3:2019
Test procedure ..... :	(EU) 2023/2534, (EU) 2023/2533
Non-standard test method…….. :	N/A
Test Report Form No..... :	EN 61121 TD NEW ERP V1.0
Test Report Form(s) Originator ..... :	DEKRA
Test item description ..... :	Auto tumble dryer
Trade Mark ..... :	威力 WEILI
Manufacturer ..... :	Same as applicant
Factory ..... :	Same as applicant
Model/Type reference ..... :	DHP80-WL16-J, DHP80-WL17-J, DHP80-WL68-SJ, DHP80-WL28-HJ
Ratings ..... :	220-240 V, 50 Hz, 700 W, 8.0 kg, R290/140 g, IPX4

Summary of testing:

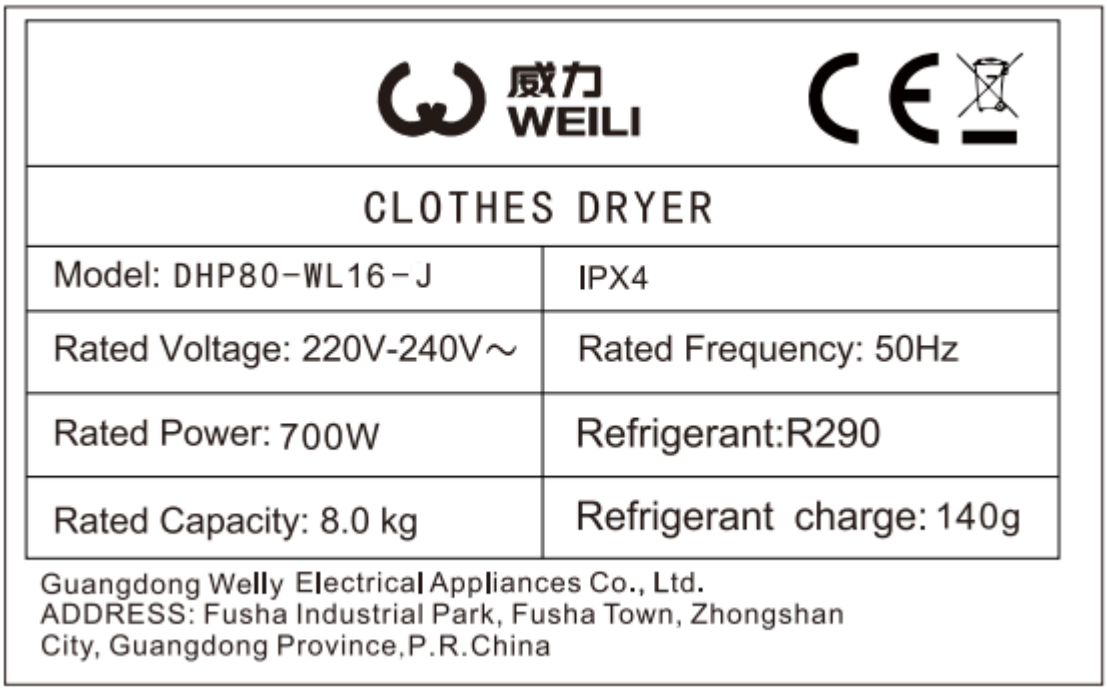
Tests performed (Test items):

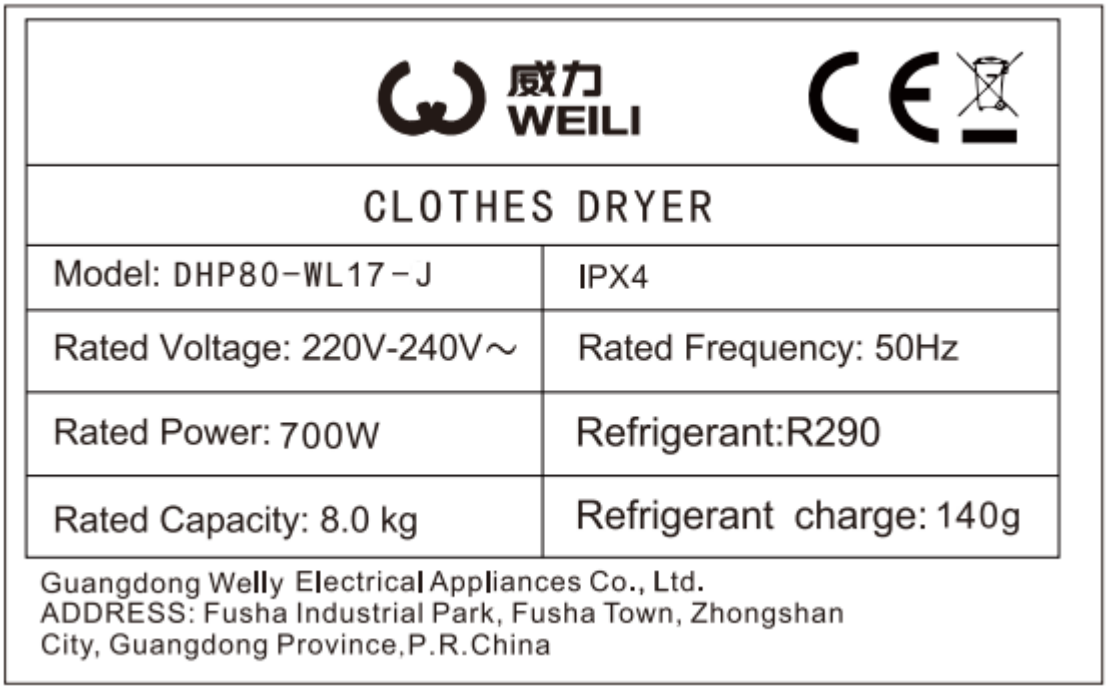
1. The tests were performed according to EU eco-design regulations of household tumble driers ((EU) 2023/2533) and EU energy label regulations of household tumble driers ((EU) 2023/2534);
2. The tests were carried out on a new tumble dryer which is installed and used in accordance with the manufacturer's instructions.
3. The tests were performed at voltage 230 V, 50 Hz.
4. Test programme: ECO
5. The appliance was tested according to EN 61121:2013, EN 61121:2013/A11:2019, EN 50564:2011, EN IEC 60704-1:2021, EN 60704-2-6:2012 and EN 60704-3:2019.

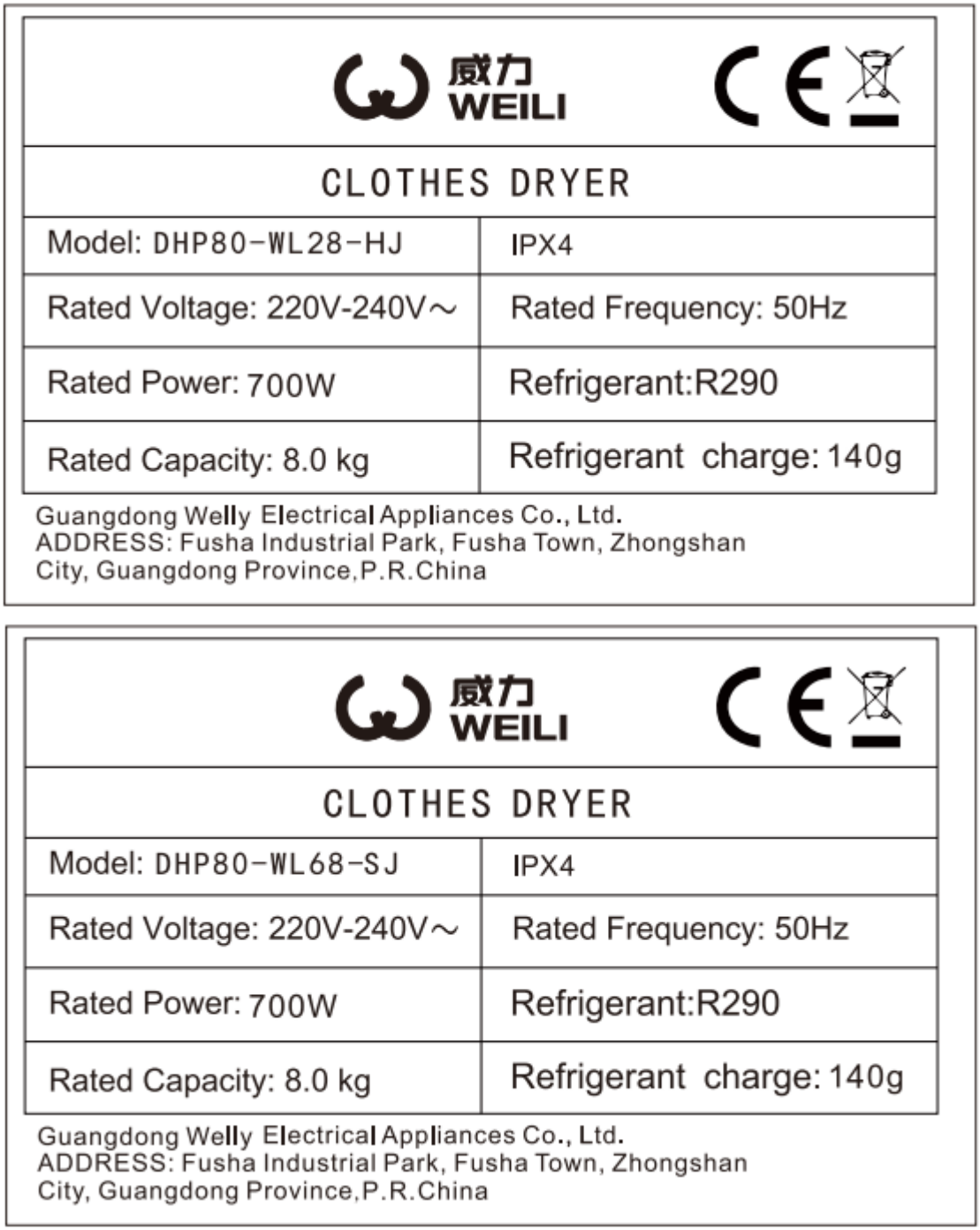
Tests performed (name of the test):
- Energy consumption test
- Moisture content test
- Programme time test
- Off mode energy consumption test
- Delay start mode energy consumption test

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.







威力 WEILI	
CLOTHES DRYER	
Model: DHP80-WL28-HJ	IPX4
Rated Voltage: 220V-240V～	Rated Frequency: 50Hz
Rated Power: 700W	Refrigerant:R290
Rated Capacity: 8.0 kg	Refrigerant charge: 140g

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ADDRESS: Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province,P.R.China

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Test item particulars ..... :	
Classification of installation and use ..... :	Free standing
Supply Connection ..... :	Non-detachable supply cord with plug

Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
Testing ..... :	
Date of receipt of test item ..... :	2023/11/18
Date (s) of performance of tests ..... :	2023/11/19 to 2024/1/5

General remarks:

The measurement result is considered in conformance with the requirement if it is within the prescribed limit, it is not necessary to account the uncertainty associated with the measurement result.

The test results presented in this report relate only to the object tested.

The information provided by customer in this report may affect the validity of the results, the test lab is not responsible for it.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

This report is not used for social function in China market.

The test results and verdict is for the client internal verification use and internal evaluation.

To avoid any risk, the above appliance(s) shall not be in production before the final certification approval.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a dot is used as the decimal separator.

Throughout this report a ☐ comma / ☒ dot is used as the decimal separator.

General product information:			
Appliance name	Auto tumble dryer		
Country of manufacture	China		
Rated capacity (kg)	8.0		
Appliance dimension declared(cm)	Height: 85	Width: 60	Depth: 65
Appliance dimension measured(cm)	Height: 85	Width: 60	Depth: 65
Loading	☐Top	☒Front	
Axis	☐Vertical	☒Horizontal	
Air vented	☐Yes	☒No	
Automatic (sensor-controlled)	☒Yes	☐No	
Condenser	☒Yes	☐No	
Timer controlled	☐Yes	☒No	
Cold water connection	☐Yes	☒No	
Duct connected	☐Yes	☒No	
Dryer equipped with a power management system	☒Yes	☐No	

General product information:

Tumble dryer for household and indoor use only.
DHP80-WL16-J, DHP80-WL17-J, DHP80-WL68-SJ and DHP80-WL28-HJ same except for model name and appearance.

Content, order and format of the product information sheet

<table>
<tr><td colspan="6">Supplier’s name or trade mark(a),(c): Guangdong Welly Electrical Appliances Co.,Ltd</td></tr>
<tr><td colspan="6">Supplier’s address(a),(c): Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province, P. R. China</td></tr>
<tr><td colspan="6">Model identifier(a): DHP80-WL16-J, DHP80-WL17-J, DHP80-WL68-SJ, DHP80-WL28-HJ</td></tr>
<tr><td colspan="2">Technology of tumble dryer</td><td colspan="4">electric air-vented, electric condenser, gas-fired</td></tr>
<tr><td colspan="6">General product parameters:</td></tr>
<tr><td>Parameter</td><td colspan="2">Value</td><td>Parameter</td><td colspan="2">Value</td></tr>
<tr><td rowspan="3">Rated capacity(b)(kg)</td><td colspan="2" rowspan="3">8.0</td><td rowspan="3">Dimensions(a),(c)in cm</td><td>Height</td><td>85</td></tr>
<tr><td>Width</td><td>60</td></tr>
<tr><td>Depth</td><td>65</td></tr>
<tr><td>Energy Efficiency Index (EEI)(b)</td><td colspan="2">76.2</td><td>Energy efficiency class(b)</td><td colspan="2">ABCDEFG</td></tr>
<tr><td>Condensation efficiency (%)(b)
(if applicable)</td><td colspan="2">83</td><td>Condensation efficiency class (if applicable)(b)</td><td colspan="2">ABCD</td></tr>
<tr><td>Weighted energy consumption in kWh per drying cycle(h). Actual energy consumption will depend on how the appliance is used.</td><td colspan="2">1.22</td><td></td><td colspan="2"></td></tr>
<tr><td rowspan="2">Programme duration(b)(hours:minutes)</td><td>Rated capacity</td><td>3:16</td><td rowspan="2">Type</td><td colspan="2" rowspan="2">[built-in/free-standing]</td></tr>
<tr><td>Half</td><td>1:53</td></tr>
<tr><td>Acoustic airborne noise emission(b)(dB(A) re 1 pW)</td><td colspan="2">68</td><td>Acoustic airborne noise emission class(b)</td><td colspan="2">[A/B/C/D](d)</td></tr>
<tr><td>Off-mode (if applicable) (W)</td><td colspan="2">0.41</td><td>Standby mode (if applicable) (W)</td><td colspan="2">N/A</td></tr>
<tr><td>Delay start (W) (if applicable)</td><td colspan="2">2.23</td><td>Networked standby (W) (if applicable)</td><td colspan="2">N/A</td></tr>
<tr><td colspan="4">For household tumble dryers equipped with a heat pump, the chemical name or the accepted industry designation of the refrigerant gas used, without prejudice to Regulation (EU) No 517/2014 on fluorinated greenhouse gases(1)(a),(c).</td><td colspan="2">R290</td></tr>
<tr><td colspan="4">Weblink to information on spare parts availability for professional repairers and end users(a)(c)(e)</td><td colspan="2">-</td></tr>
<tr><td colspan="4">Weblink to repair instructions for end-users(a)(c)(f)</td><td colspan="2">-</td></tr>
<tr><td colspan="4">Weblink to indicative pre-tax prices(a)(c)(g)</td><td colspan="2">-</td></tr>
<tr><td colspan="4">Minimum duration of the guarantee offered by the supplier(1)(c)</td><td colspan="2">one year</td></tr>
<tr><td colspan="6">Additional information(1)(c): N/A</td></tr>
<tr><td colspan="6">Link to the supplier’s website, where the information in point 6 of Annex II to Commission Regulation (EU) 2023/2533(c)(2)is found:</td></tr>
<tr><td colspan="6">(1) Regulation (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 (OJ L 150, 20.5.2014, p. 195).
(2) Commission Regulation (EU) 2023/2533 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble dryers, amending Commission Regulation (EU) 2023/826, and repealing Commission Regulation (EU) No 932/2012 (OJ L,</td></tr>
</table>

2023/2533, 22.11.2023, ELI: http://data.europa.eu/eli/reg/2023/2533/oj).
(a)This item shall not be considered relevant for the purpose of Article 2(6) of Regulation (EU) 2017/1369.
(b)For the eco programme.
(c)Changes to those items shall not be considered relevant for the purpose of Article 4(4) of Regulation (EU) 2017/1369.
(d)If the product database automatically generates the definitive content of that cell the supplier shall not enter those data.
(e)The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(b) of Regulation (EU) 2023/2533.
(f)The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(d) of Regulation (EU) 2023/2533.
(g)The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(f) of Commission Regulation (EU) 2023/2533.
(h)For gas-fired tumble dryers calculated as the weighted average energy consumption per 100 drying cycles according to Annex IV point 1(f), divided by 100.

Information to be included in the technical documentation for electric household tumble dryers

PARAMETER	UNIT	VALUE
Rated capacity for the eco programme, at 0,5 kg intervals (c)	kg	8.0
Energy consumption of the eco programme at full load (Edry)	kWh/drying cycle	1.97
Energy consumption of the eco programme at partial load (Edry,½)	kWh/drying cycle	1.09
Weighted energy consumption of the eco programme (EtC)	kWh/drying cycle	1.30
Standard energy consumption of the eco programme (SEC)	kWh/drying cycle	1.70
Energy Efficiency Index (EEI)	—	76.2
Programme duration for the eco programme at full load (Tdry)	h:min	3:29
Programme duration for the eco programme at partial load (Tdry½)	h:min	2:00
Weighted programme duration for the eco programme (Tt)	h:min	2:38
Average condensation efficiency of the eco programme at full load (Cdry) (if applicable)	%	82.0
Average condensation efficiency of the eco programme at partial load (Cdry½) (if applicable)	%	83.5
Weighted condensation efficiency of the eco programme (Ct) (if applicable)	%	83
Acoustic airborne noise emission during the eco programme	dB(A) with respect to 1 pW	68
Power consumption in off mode (Po) (if applicable)	W	0.41
Power consumption in standby mode (Psm) (if applicable)	W	N/A
Does ‘standby mode’ include the display of information?	—	N/A
Power consumption in ‘standby mode’ in condition of networked standby (Pnsm) (if applicable)	W	N/A
Power consumption in delay start (Pds) (if applicable)	W	2.23

Clause	COMMISION REGULATION (EU) 2023/2533	Result - Remark	Verdict
ANNEX II	Ecodesign requirements		P
1	Programme requirements Household tumble dryers shall meet the following requirements:		—
(a)	household tumble dryers shall provide an eco programme. The stated rated capacity for the eco programme shall not be lower than the highest stated rated capacity among all the cotton programmes of the household tumble dryer;		P
(b)	the eco programme shall be indicated as ‘eco’ and shall be clearly identifiable on the programme selection, on the display and through the network connection, depending on the functionalities provided by the household tumble dryer;		P
(c)	the name ‘eco ‘shall be used exclusively for the eco programme and may only be complemented with the term ‘cotton’. The formatting of the name is not restricted in terms of font type, font size, case sensitivity or colour. No other programme may have in its name the term ‘eco’;		P
(d)	the eco programme shall be set as the default programme for automatic programme selection or any function maintaining the selection of a programme; or, where there is no automatic programme selection, it shall be available for direct selection without the need for any other selection such as a specific time or load;		P
(e)	the indications ‘normal’, ‘daily’, ‘regular’ and ‘standard’, and their translations in all official languages of the Union, shall not be used in programme names for household tumble dryers, neither alone nor in combination with other information.		P
2	Energy efficiency requirements		—
	The EEI of household tumble dryers shall not be higher than 85. The EEI shall be calculated in accordance with Annex III.		P
3	Condensation efficiency requirements		—
	The condensation efficiency of condenser tumble dryers shall not be lower than 80 %. The condensation efficiency shall be calculated in accordance with Annex III.		P
4	Low power modes Household tumble dryers shall meet the following requirements:		—
(a)	they shall have an off-mode or a standby mode or both. The power consumption in off-mode shall not exceed 0,50 W and the power consumption in standby mode shall not exceed 0,50 W; as from 9 May 2027, the power consumption in off-mode shall not exceed 0,3 W;		P
(b)	if the standby mode includes the display of information or status, the power consumption of that mode shall not exceed 1,00 W;		N/A
(c)	if the standby mode provides for a connection to a network and provides networked standby as defined in Article 2, point (10), of Regulation (EU) 2023/826, the power consumption of this mode shall not exceed 2,00 W;		N/A

Clause	COMMISION REGULATION (EU) 2023/2533	Result - Remark	Verdict
(d)	at the latest 15 minutes after the household tumble dryer has been switched on or after the end of any programme and associated activities, or after interruption of the wrinkle guard function, or after any other interaction with the household tumble dryer, and if no other mode including emergency measures is triggered, the household tumble dryer shall switch automatically to off-mode or to standby mode;		P
(e)	if the household tumble dryer provides for a delay start, the power consumption of this condition, including any standby mode, shall not exceed 4,00 W. The delay start shall not be programmable by the user for more than 24h;		P
(f)	any household tumble dryer that can be connected to a network shall provide the possibility to activate and deactivate the network connection(s). The network connection(s) shall be deactivated by default.		N/A
5	Resource efficiency requirements		—
(1)	Availability of spare parts:		—
(a)	for all models, units of which are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of household tumble dryers shall make available to professional repairers at least the following spare parts: (i) gaskets and seals; (ii) switches and knobs; (iii) condensate pump; (iv) motors and motor brushes; (v) transmissions between motor and drum; (vi) fan and fan wheels; (vii) drums and bearings; (viii) water piping and related equipment including hoses, valves and filters; (ix) cables and plugs; (x) printed circuit boards; (xi) electronic displays; (xii) thermostats and temperature sensors; (xiii) software and firmware, including reset software; (xiv) shock absorbers and springs; (xv) heaters and heating elements; (xvi) electric fuses (separately or bundled together). (xvii) tension pulley; (xviii) support roller; (xix) pressure switches;		P
(b)	availability of spare parts referred to in point (a), shall be ensured for a minimum period starting at the latest on 1 July 2025or two years after the placing on the market of the first unit of the model, whichever is the later date, and ending at least 10 years after placing on the market the last unit of the model concerned. For that purpose, the list of spare parts, the procedure for ordering them and the repair instructions shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the same period and starting at the date referred to in this point;		P

Clause	COMMISION REGULATION (EU) 2023/2533	Result - Remark	Verdict
(c)	for all models, units of which are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of household tumble dryers shall make available to professional repairers and end-users at least the following spare parts: (i) doors, door seals, door handles, door lock assemblies and hinges; (ii) lint filters; (iii) air filters; (iv) plastic peripherals; (v) condensate tank;		P
(d)	availability of spare parts referred to in point (c), shall be ensured for a minimum period starting on the date of placing that unit on the market and ending at least 10 years after placing the last unit of the concerned model on the market. For that purpose, the list of spare parts and the procedure for ordering them and the repair and maintenance information shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the same period and starting at the date referred to in this point;		P
(e)	manufacturers, importers or authorised representatives of household tumble dryers shall ensure that the spare parts referred to in points (a) and (c) can be replaced with the use of commonly available tools and without permanent damage to the household tumble dryer;		P
(f)	during the period referred to in points (b) and (d), manufacturers, importers or authorised representatives shall provide indicative pre-tax prices at least in euro for spare parts listed in points (a) and (c), including the indicative pre-tax price of fasteners and tools, if supplied with the spare part, on the free access website of the manufacturer, importer or authorised representative.		P
(2)	Maximum delivery time of spare parts:		—
	During the period of availability of spare parts, the manufacturer, importer or authorised representative shall ensure the delivery of the spare parts within 15 working days after having received the order.		P
(3)	Access to Repair and Maintenance Information:		—
	a) During the period referred to in point 1(b) the manufacturer, importer or authorised representative shall provide access to the appliance repair and maintenance information to professional repairers. The manufacturer's, importer's or authorised representative's website shall indicate the process for professional repairers to request access to information. In order to accept such a request, the manufacturers, importers or authorised representatives may only require the professional repairer to demonstrate that:		P
(i)	the professional repairer has the technical competence to repair household tumble dryers and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates. Reference to an official registration system as professional repairer, where such system is in place in the Member States concerned, shall be accepted as proof of compliance with this point;		P

Clause	COMMISION REGULATION (EU) 2023/2533	Result - Remark	Verdict
(ii)	the professional repairer is covered by insurance covering liabilities resulting from its activity regardless of whether this is required by the Member State;		P
(b)	manufacturers, importers or authorised representatives shall accept or refuse the request referred to in point (a) within 5 working days;		P
(c)	manufacturers, importers or authorised representatives may charge reasonable and proportionate fees for access to the repair and maintenance information or for receiving regular updates. A fee is reasonable if it does not discourage access by failing to take into account the extent to which the professional repairer uses the information;		P
(d)	once the request is accepted, a professional repairer shall have access to the requested repair and maintenance information within one working day. The information may be provided for an equivalent model or model of the same family, where relevant;		P
(e)	the repair and maintenance information shall include: (i) the unequivocal household tumble dryer identification; (ii) a disassembly map or exploded view; (iii) technical manual of instructions for repair; (iv) list of necessary repair and test equipment; (v) component and diagnosis information (such as minimum and maximum theoretical values for measurements); (vi) wiring and connection diagrams; (vii) diagnostic fault and error codes (including manufacturer-specific codes, where applicable); (viii) instructions for installation of relevant software and firmware including reset software; (ix) information on how to access data records of reported failure incidents stored on the household tumble dryer (where applicable); (x) electronic board diagrams;		P
(f)	without prejudice to intellectual property rights, third parties shall be allowed to use and publish unaltered repair and maintenance information initially published by the manufacturer, importer or authorised representative and covered by point (e) once the manufacturer, importer or authorised representative terminates access to that information after the end of the period of access to repair and maintenance information.		
(4)	Manufacturers, importers or authorised representatives of household tumble dryers shall make available software and firmware updates for a minimum of 10 years after the placing of the last unit of a model on the market and these software and firmware updates shall be provided free of charge.		N/A
(5)	Information requirements for refrigerant gases: Without prejudice to Regulation (EU) No 517/2014 of the European Parliament and of the Council(1), and in particular Article 12 on labelling and product and equipment information, the chemical name or the accepted industry designation of the refrigerant gas used in heat pump tumble dryers, shall be displayed permanently in a place on the external parts of the appliance that are visible and can be easily identified by the end-user, for example on the back panel.		P

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(6)	Requirements for dismantling for material recovery and recycling while avoiding pollution: (a) manufacturers, importers or authorised representatives shall ensure that household tumble dryers are designed in such a way that the materials and components referred to in Annex VII to Directive 2012/19/EU of the European Parliament and of the Council(2)can be removed from the appliance with the use of commonly available tools; (b) manufacturers, importers or authorised representatives shall fulfil the obligations laid down in Article 15(1) of Directive 2012/19/EU.		P
6	Information Requirements		—
	User and installer instructions shall be provided in the form of a user manual on a free access website of the manufacturer, importer or authorised representative, and shall include:		P
(1)	the following general information:		—
(a)	information that the eco programme is suitable to dry wet cotton laundry, and that this programme is used to assess the compliance with the EU ecodesign legislation;		P
(b)	information that the eco programme is the most efficient programme in terms of energy consumption for drying wet cotton laundry;		P
(c)	information that loading the household tumble dryer up to the maximum capacity indicated by the manufacturer for the respective programmes will contribute to energy savings;		P
(d)	if applicable, information on how to activate and deactivate the network connection and impact on energy consumption;		P
(e)	instructions on how to find the model information stored in the product database, as specified in Commission Delegated Regulation (EU) 2023/2534(3)by means of a weblink that links to the model information as stored in the product database or a link to the product database and information on how to find the model identifier on the product;		P
(2)	values for the following parameters: (a) rated capacity in kg; (b) programme duration, expressed in hours and minutes; (c) electricity, and where applicable, gas consumption in kWh/drying cycle; (d) final moisture content after the drying cycle; (e) acoustic airborne noise emission of the drying cycle.		—
(3)	The values for the parameters set out in points (a) to (e) shall be provided for the eco programme at full load and, except for the parameter set out in point (e), at partial load and for the following programmes where they are available: (a) synthetics dry at full load; (b) delicates/wool drying at full load; (c) cotton extra/very dry at full load and partial load; (d) cotton iron dry at full load and partial load; (e) synthetics extra/very dry at full load; (f) synthetics iron dry at full load; The values given for programmes other than the eco programme are indicative only;		P

Clause	COMMISION REGULATION (EU) 2023/2533	Result - Remark	Verdict
	instructions to perform maintenance operations, including at least the following operations: (a) correct installation including level positioning, connection to mains, connection to water outlet (if relevant), connection to gas (if relevant), installation of ventilation hose (if relevant); (b) cleaning of filters, including optimal frequency, and procedure, and main consequences of insufficient cleaning of filters; the instructions shall indicate that, when cleaning the filters, the lint should be thrown in the garbage bin and not washed through the drain in order to avoid spreading microplastics in the used water system; (c) emptying of water tank for condenser dryers in case the household tumble dryer is not connected to water outlet; (d) periodic cleaning, including optimal frequency; (e) door opening between drying cycles, if appropriate; (f) foreign object removal; (g) identification of errors, the meaning of the errors, and the action required, including identification of errors requiring professional assistance; (h) how to access professional repair services (internet webpages, addresses, contact details). The instructions shall also include information on any implications of self-repair or non-professional repair for the safety of the user and for the guarantee and on the minimum period during which the spare parts are available.		P

Appendix: Test data:

Treatment	Symbol	Unit	Noted (n)	Reported accuracy	Treatment half part A		Treatment half part B		Treatment half part A + part B		
			Measured (m)								
Test runs			**Calculated (calc)**		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Date of test run	—	yyyy.mm.dd	n	—	2023/11/19	2023/11/20	2023/11/19	2023/11/20	2023/11/21	2023/11/22	2023/11/23
Rated capacity	W	g	calc	1	4000	4000	4000	4000	8000	8000	8000
Conditioned test load mass	W_0	g	calc	1	4022	4022	4032	4032	8050	8050	8050
Mass of test load after wetting	W_i	g	n	1	6435	6436	6455	6451	12880	12880	12880
Nominal initial moisture content	μ_{io}	%	n	0.1	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Initial moisture	μ_{ij}	%	calc	0.1	60.0	60.0	60.1	60.0	60.0	60.0	60.0
Final load mass	W_{fj}	g	m	1	3950	4010	4040	3997	8104	8185	8006
Nominal final moisture content	μ_{f0}	%	n	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final moisture content	μ_{fj}	%	calc	0.1	-1.8	-0.3	0.2	-0.9	0.7	1.7	-0.5
Measured energy consumption	E_{mj}	kWh	m	0.01	1.08	1.04	1.01	1.03	1.80	1.83	1.89
Corrected energy	E_j	kWh	calc	0.01	1.04	1.03	1.01	1.01	1.81	1.87	1.86

consumption											
Specific energy consumption	E_s	kWh/kg	calc	0.001	0.260	0.258	0.250	0.253	0.226	0.234	0.233
Measured programme time	T_{mt}	min	m	1	116	111	113	120	189	196	201
Corrected programme time	T_t	min	calc	1	112	110	112	117	190	200	198

Treatment	**Symbol**	**Unit**	**Noted (n)**	**Reported accuracy**	**Treatment half part A**		**Treatment half part B**		**Treatment half part A + part B**		
			Measured (m)								
Test runs			**Calculated (calc)**		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Specific programme time	t_s	min/kg	m	0.1	28.0	27.5	28.0	29.3	23.8	25.0	24.8
Measured water consumption	L_{mj}	l	m	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Corrected water comsumption	L_j	l	calc	0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Specific water consumption	L_s	l/kg	calc	0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Initial mass of the condenser reservoir	—	g	m	1	720	726	732	744	724	734	732
Final mass of the condenser reservoir	—	g	m	1	2820	2757	2742	2769	4587	4636	4727
Mass of water collected	W_w	g	m	1	2100	2031	2010	2025	3863	3902	3995

Condensation efficiency	C_j	%	calc	0.1	84.5	83.7	83.2	82.5	80.9	83.1	82.0

Treatment	Symbol	Unit	Noted (n)	Reported accuracy	Treatment half part A		Treatment half part B		Treatment half part A + part B		
			Measured (m)								
Test runs			Calculated (calc)		1	2	3	4	5	6	7
Ambient temperature	—	°C	m	0.1	22.8	23.1	22.9	23.0	23.0	23.1	22.5
Ambient humidity	—	%	m	1	52	52	52	52	52	52	52
Water temperature	—	°C	m	0.1	15.0	14.9	15.0	15.0	14.8	14.9	15.0
Water hardness	—	mmol/l	m	0.01	2.55	2.48	2.48	2.51	2.51	2.44	2.44
Measured Ph-value	—	—	m	0.1	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Measured conductivity	—	µS/cm	m	1	863	860	859	855	845	841	837
Water alkalinity	—	mmol/l	m	0.01	3.34	3.34	3.34	3.34	3.34	3.34	3.34

Low power modes test data:

Parameter	Symbol	Symbol as given in regulation	Unit	Noted (n), Measured (m), Calculated (calc)	Reported precision (note 1)	Result
Date of test run	—	—	yyyy.mm.dd	n	—	2023/11/19
'End of programme' indication	—	—	—	n	—	Voice prompt and display"END"
Power consumption in 'off mode' (if applicable)	P_o	P_o	W	m	0.01	0.41
Power consumption in 'standby mode' (if applicable)	P_{sm}	P_{sm}	W	m	0.01	N/A
If 'standby mode' is avalable, does it include the display of information or status?	—	—	—	n	Yes/No	N/A
Is delay start available?	—	—	—	n	Yes/No	Yes
- If delay start is available, is delay start possible for more than 24h?	—	—	—	n	Yes/No	No
- If delay start is available, power consumption in 'delay start'	P_{ds}	P_{ds}	W	m	0.01	2.23
Is network connection(s) available?	—	—	—	n	Yes/No	No
-If network connection(s) is available, is activation and deactivation of the network connection(s) possible?	—	—	—	n	Yes/No	No
- If network connection(s) is available, is network connection(s) deactivated by default?	—	—	—	n	Yes/No	No
Power consumption in 'standby mode' in condition of network standby (if applicable)	P_{ns}	P_{sm}	W	m	0.01	N/A
Is the machine automatically switching to 'off mode' or 'standby-mode' within 15 min?	—	—	—	n	Yes/No	Yes
NOTE 1: The figures for reported precision specify the rounding and reporting of values. As an example, a reported precision of 0.001 means that the result shall be reported rounded to 3 decimal places.						

Table for noise test				
Test installation	The sample was installed in accordance with the manufacturer's instruction in the acoustic chamber			
Test voltage/frequency:	230 Vac/50 Hz			
Relative humidity[%]	61.9%			
Ambient temperature[°C]	23.2			
Background Noise Level [dB]	16.8			
Background	Status	Sensor situation	Results / Lpi [dB]	LW/ Sound Power Level [dB(A)]
Sample	ECO programme (full load)	*Front*	56.8	67.8
		Right	56.5	
		Left	56.3	
		Right-front	55.1	
		Left-front	52.6	
		Top cover	57.6	

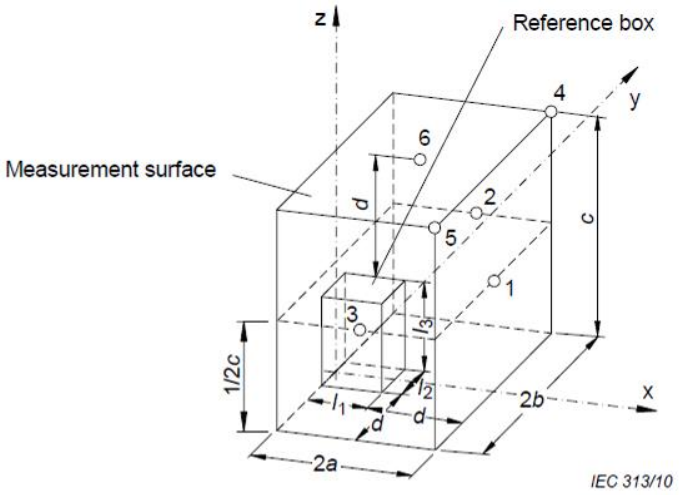
Figure of microphone position:

Co-ordinates of microphone positions:

N°	*x*	*y*	*z*
1	2a	0	0,5c
2	a	b	0,5c
3	a	-b	0,5c
4	2a	b	c
5	2a	-b	c
6	a	0	c

Measurement surface area:

$S = 2(2ac + 2ab + bc)$



Remark: N/A

Test result summary:

Items	Symbol	Unit	Reported accuracy	Value	Standard deviation
Rated capacity for the eco programme, at 0,5 kg intervals	c	kg	0.5	8.0	—
Average of the final moisture of all test runs $\mu_t = \frac{(3\times\mu_{dry}+4\times\mu_{dry1/2})}{7}$	μ	%	0.1	-0.1	0.680
Energy consumption of the eco programme at full load	E_{dry}	kWh/drying cycle	0.01	1.85	0.032
Energy consumption of the eco programme at partial load	$E_{dry1/2}$	kWh/drying cycle	0.01	1.02	0.018
Weighted energy consumption of the eco programme $E_{tC} = 0,24\times E_{dry} + 0,76\times E_{dry½}$	E_{tC}	kWh/drying cycle	0.01	1.22	0.017
Standard energy consumption of the eco programme ➢ other than air-vented tumble dryers: $SE_C = 0,46\times c^{0,63}$ ➢ air-vented tumble dryers: $SE_C = 0,46\times c^{0,63}\times\left(1-\frac{T_t}{60}\times 0,083\right)$	SE_C/cycle	kWh/drying cycle	0.01	1.70	—
Energy Efficiency Index $EEI = \frac{E_{tC}}{SE_C}\times 100$	EEI	—	0.1	71.8	—
Programme duration for the eco programme at full load	T_{dry}	min	0.1	196	5.292
Programme duration for the eco programme at partial load	$T_{dry1/2}$	min	0.1	113	2.986
Weighted programme duration for the eco programme $T_t = 0,24\times T_{dry} + 0,76\times T_{dry½}$	T_t	min	0.1	133	2.803
Average condensation efficiency of the eco programme at full load(if applicable)	C_{dry}	%	0.1	82.0	1.100
Average condensation efficiency of the eco programme at partial load(if applicable)	$C_{dry1/2}$	%	0.1	83.5	0.842
Weighted condensation efficiency of the eco programme(if applicable) $C_t = 0,24\times C_{dry} + 0,76\times C_{dry½}$	C_t	%	1	83	0.671

Items	Symbol	Unit	Reported accuracy	Value	Standard deviation
Acoustic airborne noise emission during the eco programme	—	dB(A) with respect to 1 pW	1	67.8	—
Average of the corrected water consumption of all test runs	L_t	l	0.1	N/A	—
Average of the corrected water consumption of all test runs at treatment full	L_{dry}	l	0.1	N/A	—
Average of the corrected water consumption of all test runs at treatment half	$L_{dry1/2}$	l	0.1	N/A	—
Power consumption in off mode (if applicable)	P_O	W	0.01	0.41	—
Power consumption in standby mode (if applicable)	Psm	W	0.01	N/A	—
Does ‘standby mode’ include the display of information	—	—	Yes/No	N/A	—
Power consumption in ‘standby mode’ (P_{sm}) in condition of networked standby (if applicable)	Psm	W	0.01	N/A	—
Power consumption in ‘delay start’ (P_{ds}) (if applicable)	Pds	W	0.01	2.23	—

Ecodesign requirements:

Items	**Tested value**	**Stage**	**Verdict**
EEI	71.8	EEI≤85	P
C_t (For condenser tumble dryers only)	83	C_t≥80%	P

Verification:

Items	Measured	Declared	Deviation	Verdict
C, Rated capacity for the eco programme, at 0,5 kg intervals (kg)	8.0	8.0	0%	P
E_{dry}, Energy consumption of the eco programme at full load (kWh/drying cycle)	1.85	1.97	-6.1%	P
$E_{dry,½}$, Energy consumption of the eco programme at partial load (kWh/drying cycle)	1.02	1.09	-6.4%	P
E_{Tc}, Weighted energy consumption of the eco programme (kWh/drying cycle)	1.22	1.30	-6.2%	P
Energy Efficiency Index (EEI)	71.8	76.2	—	P
Energy Efficiency Class	E	E	—	P
T_{dry}, Programme duration for the eco programme at full load (h:min)	3:16	3:29	—	P
$T_{dry½}$,Programme duration for the eco programme at partial load (h:min)	1:53	2:00	—	P
T_t ,Weighted programme duration for the eco programme (h:min)	2:13	2:38	—	P
C_t, Weighted condensation efficiency of the eco programme (%)	83	83	0%	P
Condensation efficiency class	C	C	—	P
Acoustic airborne noise emission during the eco programme, dB(A) with respect to 1 pW	67.8	68	-0.3%	P
Acoustic airborne noise emission class	C	C	—	P
Po, Power consumption in off mode (W)	0.41	0.41	0%	P
Psm, Power consumption in standby mode (W)	N/A	N/A	—	N/A
Pds, Power consumption in delay start mode (W)	2.23	2.23	0%	P
Remark: For the original qualification test, the rating values should be equal to or more unfavourable than the tested values.				

Table 1

Energy efficiency class

Energy efficiency class	Energy Efficiency Index
A (most efficient)	EEI ≤ 43
B	43 < EEI ≤ 50
C	50 < EEI ≤ 60
D	60 < EEI ≤ 70
E	70 < EEI ≤ 85
F	85 < EEI ≤ 100
G (least efficient)	EEI > 100

Table 2

Acoustic airborne noise emission class

Acoustic airborne noise emission class	Noise (dB(A))
A	L_{WA} ≤ 60
B	60 < L_{WA} ≤ 64
C	64 < L_{WA} ≤ 68
D	L_{WA} > 68

Table 3

Condensation efficiency class

Condensation efficiency class	Weighted condensation efficiency
A	Ct ≥ 94
B	88 ≤ Ct < 94
C	82 ≤ Ct < 88
D	Ct < 82

CDF list：

Object / part No.	Manufacturer/ Trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Main motor	Guangdong Welly Electrical Appliances Co., Ltd.	XD-150	220-240V; 50Hz 60Hz; 150W; Class 155(F)	IEC/EN 60335-2-11 IEC/EN 60335-1	Test in appliance
Compressor	Huangshi Donper Compressor Co.,Ltd.	QH069CURS3C1	220V~240V/50Hz/single 6.9 cm^3/rev R290	EN 60335-1: 2012+A11+A13+A1+A14+A2+A15 EN 60335-2-34: 2013+A11	R 50614478 0001

Photos:

Front view

Control panel view

--End of report--