



COMMISSION DELEGATED REGULATION (EU) No 2019/2014
supplementing Regulation (EU) 2017/1369 of the European Parliament and of the
Council with regard to energy labelling of household washing machines and
household washer-dryers
COMMISSION REGULATION (EU) No 2019/2023
laying down ecodesign requirements for household washing machines and
household washer-dryers pursuant to Directive 2009/125/EC

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Testing Laboratory: SGS-CSTC Standards Technical Services Co., Ltd. Anhui Branch
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Fanhua Road, Economic & Technological Development Area,
Hefei, 230601 Anhui, China



Applicant's name.....: HISENSE HOME APPLIANCES GROUP CO., LTD.
Address.....: 8 Ronggang Road, Ronggui Street, Shunde, Foshan, 528303
Guangdong, China

Manufacturer's name: Same as applicant
Address: Same as applicant

Test specification:
Standard: (EU) No 2019/2014;
(EU) No 2019/2023
 EN 60456:2016 + FprAA:2020
 prEN IEC 62512:2020 + FprAA:2020
Test procedure: SGS-CSTC
Non-standard test method.....: None

Test Report Form No......: 2019/2014&2019/2023_A
Test Report Form(s) Originator: SGS-CSTC
Master TRF.....: 2020-04

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Test item description	Front Load Washing Machine with Dryer (Washer Dryer)
Trade Mark	Hisense
Factory	Hisense (Shandong) Refrigerator Co., Ltd. 8 Haixin Road, Nancun, Pingdu, Qingdao City, Shandong, P.R. China
Model/Type reference.....	WDQY1014EVJM, WDQY1014EVJM*, WDMY1014EVJM, WDMY1014EVJM* (* = A - Z)
Ratings.....	220 V - 240 V; 50 Hz; Class I; IPX4; Washing: 1750 W; 10,0 kg, Drying: 1350 W; 6,0 kg

Summary of testing:

Tests performed (name of test and test clause):

(EU) No 2019/2014

(EU) No 2019/2023

EN 60456:2016 + FprAA:2020

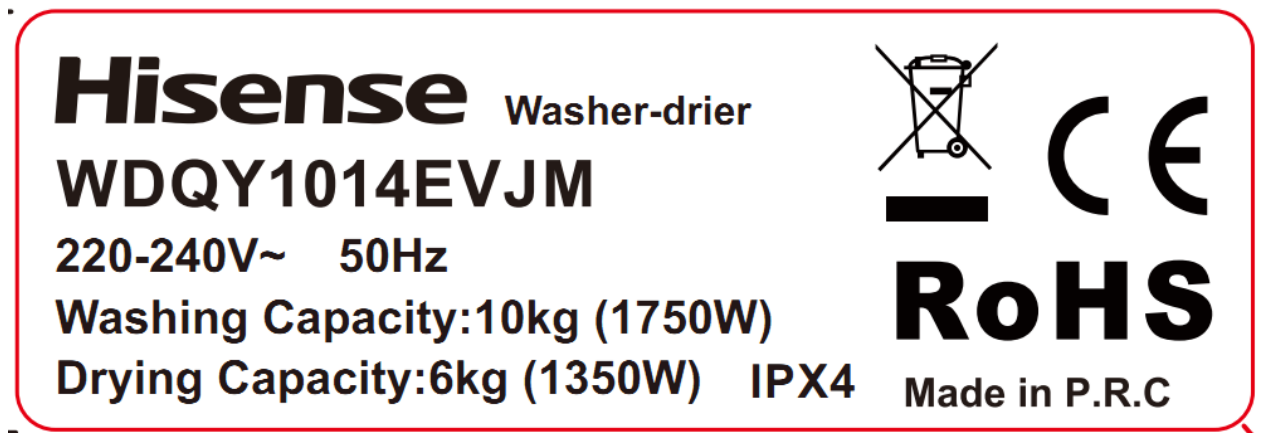
prEN IEC 62512:2020 + FprAA:2020

These tests were conducted by test lab that fulfils the requirements of standard ISO/IEC 17025.

Testing location:

1/F&2/F, West Building C12, Gongtou Liheng Industrial Square, Fanhua Road, Economic & Technological Development Area, Hefei, 230601 Anhui, China

Copy of marking plate and/or label:



Remark:

Marking plates for other models were identical with above one except for model name.

Test item particulars		Front Load Washing Machine with Dryer		
Brand.....	Hisense			
Model	WDQY1014EVJM, WDQY1014EVJM*, WDMY1014EVJM, WDMY1014EVJM* (* = A - Z)			
Country of manufacture.....	China			
Machine type	<input checked="" type="checkbox"/> Drum type <input type="checkbox"/> Other than drum type			
Give details if other than drum type	N/A			
Axis.....	<input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal			
Loading	<input checked="" type="checkbox"/> Front <input type="checkbox"/> Top			
Type of mounting.....	<input type="checkbox"/> Build-in <input checked="" type="checkbox"/> Independent			
Heating element assembled.....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water connection.....	<input type="checkbox"/> Hot <input checked="" type="checkbox"/> Cold <input type="checkbox"/> Hot & cold			
For Washer dryer.....				
Air vented	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Automatic (sensor-controlled)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Timer controlled	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Condenser	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Cold water connections	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Duct connected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Multi-drum	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Washing rated capacity (cotton)	kg	10,0		
Drying rated capacity (cotton)	kg	6,0		
Rated voltage	V	220-240 V		
Rated frequency	Hz	50 Hz		
Declared drum volume	l	—		
Measured drum volume	l	—		
Measured appliance dimension	cm	Wide	Depth	Height
		60	58	85

<p>Possible test case verdicts:</p> <ul style="list-style-type: none"> - 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)
<p>Testing</p> <p>Date of receipt of test item: 2020-08-28</p> <p>Date (s) of performance of tests: 2020-08-30 to 2020-09-10</p>
<p>General remarks:</p> <p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>This document is issued by the company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.</p> <p>Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. 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 the transaction documents. 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.</p> <p>Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 30 days. This document cannot be reproduced except in full, without prior approval of the company.</p>
<p>General product information:</p> <p>The appliance is for household and indoor use only.</p> <p>The appliance is assembled with Motor: XPMS6937A-a (Kingclean Electric Co., Ltd.) Washing Heater: WACES5827 (Hangzhou Heatwell Electric Heating Technology Co., Ltd) Drying heater: TCRGQ-02 (Anhui Ningguo Tiancheng Electric Co.,Ltd.)</p> <p>All the models in this report are identical with each other except for control panel view.</p>

Product information sheet

1. For washing machine

Parameter	Value		Parameter	Value	
Rated capacity (kg)	10,0		Dimensions in cm	Height	85
				Width	60
				Depth	58
EEI _w ^(a)	59,7		Energy efficiency class ^(a)	[A/B/C/D/E/F/G] ^(c)	
Washing efficiency index ^(a)	1,04		Rinsing effectiveness (g/kg) ^(a)	4,0	
Energy consumption in kWh per cycle, based on the eco 40-60 programme. Actual energy consumption will depend on how the appliance is used.	0,590		Water consumption in litre per cycle, based on the eco 40-60 programme. Actual water consumption will depend on how the appliance is used and on the hardness of the water.	43	
Maximum temperature inside the treated textile ^(a) (°C)	Rated capacity	39	Remaining moisture content ^(a) (%)	Rated capacity	49
	Half	36		Half	51
	Quarter	25		Quarter	51
Spin speed ^(a) (rpm)	Rated capacity	1400	Spin-drying efficiency class ^(a)	[A/B/C/D/E/F/G] ^(c)	
	Half	1400			
	Quarter	1400			
Programme duration ^(a) (h:min)	Rated capacity	3:59	Type	[built-in/free-standing]	
	Half	3:00			
	Quarter	3:00			
Airborne acoustical noise emissions in the spinning phase ^(a) (dB(A) re 1 pW)	—		Airborne acoustical noise emission class ^(a) (spinning phase)	[A/B/C/D] ^(c)	
Off-mode (W)	0,49		Standby mode (W)	—	
Delay start (W) (if applicable)	3,60		Networked standby (W) (if applicable)	—	
Minimum duration of the guarantee offered by the supplier ^(b) :			—		
This product has been designed to release silver ions during the washing cycle			[YES/NO]		
Additional information:			—		
^(a) for the eco 40-60 programme. ^(b) changes to these items shall not be considered relevant for the purposes of paragraph 4 of Article 4 of Regulation (EU) 2017/1369. ^(c) if the product database automatically generates the definitive content of this cell the supplier shall not enter these data.					

2. For household Washer-dryer

Parameter	Value		Parameter	Value	
Rated capacity (kg)	Rated capacity ^(b)	6,0	Dimensions in cm	Height	85
	Rated washing capacity ^(b)	10,0		Width	60
				Depth	58
Energy Efficiency Index	EEI _w ^(a)	—	Energy efficiency class ^(a)	EEI _w ^(a)	[A/B/C/D/E/F/G] ^(d)
	EEI _{WD} ^(b)	81,8		EEI _{WD} ^(b)	[A/B/C/D/E]

					/F/G] ^(d)
Washing efficiency index	I _w ^(a)	—	Rinsing effectiveness (g/kg dry textile)	I _R ^(a)	—
	J _w ^(b)	1,04		J _R ^(b)	4,0
Energy consumption in kWh per kg per cycle, for the washing cycle of the household washer-dryer, using the eco 40-60 programme at a combination of full and partial loads. Actual energy consumption will depend on how the appliance is used	0,059		Energy consumption in kWh per kg per cycle, for the wash and dry cycle of the household washer-dryer at a combination of full and half loads. Actual energy consumption will depend on how the appliance is used	0,62	
Water consumption in litre per cycle, for the eco 40-60 programme at a combination of full and partial loads. Actual water consumption will depend on how the appliance is used and on the hardness of the water	—		Water consumption in litre per cycle, for the wash and dry cycle of the household washer-dryer at a combination of full and half loads. Actual water consumption will depend on how the appliance is used and on the hardness of the water	90	
Maximum temperature inside the treated textile ^(a) (°C)	Rated capacity	41	Remaining moisture content ^(a) (%)	Rated capacity	—
	Half	34		Half	—
	Quarter	—		Quarter	—
Spin speed ^(a) (rpm)	Rated washing capacity	1400	Spin-drying efficiency class ^(a)	[A/B/C/D/E/F/G] ^(d)	
	Half	1400			
	Quarter	—			
Eco 40-60 Programme duration (h:min)	Rated washing capacity	—	Wash and dry cycle duration (h:min)	Rated capacity	7:40
	Half	—		Half	5:30
	Quarter	—			
Airborne acoustical noise emissions during the spinning phase for the eco 40-60 washing cycle at rated washing capacity (dB(A) re 1 pW)	—		Airborne acoustical noise emission class for the spinning phase for the eco 40-60 programme at rated washing capacity	[A/B/C/D] ^(d)	
Type	[built-in/free-standing]				
Off-mode (W)	0,49		Standby mode (W)	—	
Delay start (W) (if applicable)	3,60		Networked standby (W) (if applicable)	—	
Minimum duration of the guarantee offered by the supplier ^(c) :	—				
This product has been designed to release silver ions during the washing cycle	[YES/NO]				
Additional information:	—				
^(a) for the eco 40-60 programme ^(b) for the wash and dry cycle ^(c) changes to these items shall not be considered relevant for the purposes of paragraph 4 of Article 4 of Regulation (EU) 2017/1369. ^(d) if the product database automatically generates the definitive content of this cell the supplier shall not enter these data.					

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
1	Program requirements		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
(1)	household washing machines and household washer-dryers shall provide:		P
(a)	a washing cycle called 'eco 40-60', which is able to clean normally soiled cotton laundry declared to be wash-able at 40 °C or 60 °C, together in the same cycle;		P
(b)	a washing cycle called '20 °C', which is able to clean lightly soiled cotton laundry, at a nominal temperature of 20 °C;		P
	these cycles shall be clearly identifiable on the programme selection, on the display and through the network connection, depending on the functionalities provided by the household washing machine or household washer-dryer;		P
(2)	for the requirements set out in points 3(1), 3(3), 4(1), 4(2), 4(5), 5 and 6(1), the 'eco 40-60' programme shall be used;		P
(3)	the eco 40-60 programme shall be named 'eco 40-60' on the programme selection, on the display and through the network connection, depending on the functionalities provided by the household washing machine or the household washer-dryer;		P
	the name 'eco 40-60' shall be used exclusively for this programme. The formatting of 'eco 40-60' is not restricted in terms of font, font size, case sensitivity or colour. No other programme may have in its name the term 'eco';		P
	the eco 40-60 programme shall be set as the default programme for automatic programme selection or any function maintaining the selection of a programme, or, if there is no automatic programme selection, shall be available for direct selection without the need for any other selection such as a specific temperature or load;		P
	the indications 'normal', 'daily', 'regular' and 'standard', and their translations in all EU official languages, shall not be used in programme names for household washing machines or household washer-dryers, either alone or in combination with other information.		P
2	WASH AND DRY CYCLE		—
	From 1 March 2021, household washer-dryers shall meet the following requirements:		—

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(1)	household washer-dryers shall provide a complete cycle for cotton laundry, named 'wash and dry': — which is continuous if the household washer-dryer provides a continuous cycle; — where the washing cycle is an eco 40-60 programme as defined in point 1; and — where the drying cycle achieves cupboard dry status;		P
(2)	the wash and dry cycle shall be clearly identifiable in the user instructions referred to in point 9 of this Annex		P
(3)	if the household washer-dryer provides a continuous cycle, the rated capacity of the wash and dry cycle shall be the rated capacity for this cycle;		P
(4)	if the household washer-dryer does not provide a continuous cycle, the rated capacity of the wash and dry cycle shall be the lower value of the rated washing capacity of the eco 40-60 programme and the rated drying capacity of the drying cycle achieving cupboard dry status;		N/A
(5)	for the requirements set out in points 3(2), 3(4), 4(3), 4(4), 4(6) and 6(2), the wash and dry cycle shall be used.		P
3	ENERGY EFFICIENCY REQUIREMENTS		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
(1)	the Energy Efficiency Index (EEI _w) for household washing machines and the washing cycle of household washer-dryers shall be lower than 105;		P
(2)	the Energy Efficiency Index (EEI _{wd}) for the wash and dry cycle of household washer-dryers shall be lower than 105.		P
	From 1 March 2024, household washing machines with a rated capacity higher than 3 kg and household washer-dryer with a rated washing capacity higher than 3 kg shall meet the following requirements:		—
(3)	the EEI _w for household washing machines and the washing cycle of household washer-dryers shall be lower than 91.		P
(4)	the EEI _{wd} for the wash and dry cycle of household washer-dryers shall be lower than 88.		P
	The EEIW and EEIWD shall be calculated in accordance with Annex III.		P
4	FUNCTIONAL REQUIREMENTS		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(1)	for household washing machines with a rated capacity higher than 3 kg and for the washing cycle of household washer-dryers with a rated capacity higher than 3 kg, the Washing Efficiency Index (Iw) of the eco 40-60 programme shall be greater than 1,03 for each of the following loading sizes: rated washing capacity, half of the rated washing capacity and a quarter of the rated washing capacity;		P
(2)	for household washing machines with a rated capacity lower than or equal to 3 kg and for the washing cycle of household washer-dryers with a rated capacity lower than or equal to 3 kg, the Washing Efficiency Index (Iw) of the eco 40-60 programme shall be greater than 1,00 at rated washing capacity;		N/A
(3)	for household washer-dryers with a rated capacity higher than 3 kg, the Washing Efficiency Index (Jw) of the wash and dry cycle shall be greater than 1,03 at rated capacity and at half of the rated capacity;		P
(4)	for household washer-dryers with a rated capacity lower than or equal to 3 kg, the Washing Efficiency Index (Jw) of the wash and dry cycle shall be greater than 1,00 at rated capacity;		N/A
(5)	for household washing machines with a rated capacity higher than 3 kg and for the washing cycle of household washer-dryers with a rated capacity higher than 3 kg, the Rinsing Effectiveness (IR) of the eco 40-60 programme shall be smaller than or equal to 5,0 g/kg for each of the following loading sizes: rated washing capacity, half of the rated washing capacity and a quarter of the rated washing capacity		P
(6)	for household washer-dryers with a rated capacity higher than 3 kg, the Rinsing Effectiveness (JR) of the wash and dry cycle shall be smaller than or equal to 5,0 g/kg at rated capacity and at half of the rated capacity.		P
	The Iw, Jw, IR and JR shall be calculated in accordance with Annex III.		P
5	REQUIREMENTS ON DURATION		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
	the duration of the eco 40-60 programme (tW), expressed in hours and minutes and rounded to the nearest minute, shall be lower than or equal to the time limit tcap, which depends on the rated capacity as follows:		P
(1)	for the rated washing capacity, the time limit is given by the following equation: tcap(in min) =137 + c × 10,2, with a maximum of 240 minutes;		P

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Cl.	Requirement-Test	Result-Remark	Verdict
(2)	for half of the rated washing capacity and a quarter of the rated washing capacity, the time limit is given by the following equation: $t_{cap}(\text{in min}) = 120 + c \times 6$ with a maximum of 180 minutes;		P
	where c is the rated capacity of the household washing machine or the rated washing capacity of the household washer-dryer for the eco 40-60 programme.		P
6	WEIGHTED WATER CONSUMPTION REQUIREMENT		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
(1)	for household washing machines and the washing cycle of household washer-dryers, the weighted water consumption (W_w , in litres/cycle) for the eco 40-60 programme shall be: $W_w \leq 2,25 \times c + 30$ where c is the rated capacity of the household washing machine or the rated washing capacity of the household washer-dryer for the eco 40-60 programme;		P
(2)	for household washer-dryers, the weighted water consumption (W_{WD} , in litres/cycle) for the wash and dry cycle shall be: $W_{WD} \leq 10 \times d + 30$ where d is the rated capacity of the household washer-dryer for the wash and dry cycle.		P
	The W_w and W_{WD} shall be calculated in accordance with Annex III.		P
7	LOW POWER MODES		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
(1)	household washing machines and household washer-dryers shall have an off-mode or a stand-by mode or both. The power consumption of these modes shall not exceed 0,50 W;		P
(2)	if the stand-by mode includes the display of information or status, the power consumption of this mode shall not exceed 1,00 W;		N/A
(3)	if the stand-by mode provides for a connection to a network and provides networked standby as defined in Commission Regulation (EU) No 801/2013 (1), the power consumption of this mode shall not exceed 2,00 W;		N/A

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(4)	at the latest 15 minutes after the household washing machine and household washer-dryer have 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 washing machine and household washer-dryer, if no other mode, including emergency measures, is triggered, the household washing machine and household washer-dryer shall switch automatically to off-mode or standby mode;		P
(5)	if the household washing machine and household washer-dryer provide 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 24 h;		P
(6)	any household washing machine and any household washer-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
8	RESOURCE EFFICIENCY REQUIREMENTS		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—
(1)	availability of spare parts:		P
(a)	<p>manufacturers, importers or authorised representatives of household washing machines and household washer-dryers shall make available to professional repairers at least the following spare parts, for a minimum period of 10 years after placing the last unit of the model on the market:</p> <ul style="list-style-type: none"> — motor and motor brushes; — transmission between motor and drum; — pumps; — shock absorbers and springs; — washing drum, drum spider and related ball bearings (separately or bundled); — heaters and heating elements, including heat pumps (separately or bundled); — piping and related equipment including all hoses, valves, filters and aquastops (separately or bundled); — printed circuit boards; — electronic displays; — pressure switches; — thermostats and sensors; — software and firmware including reset software; 		P

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(b)	manufacturers, importers or authorised representatives of household washing machines and household washer-dryers shall make available to professional repairers and end-users at least the following spare parts: door, door hinge and seals, other seals, door locking assembly and plastic peripherals such as detergent dispensers, for a minimum period of 10 years after placing the last unit of the model on the market;		P
(c)	manufacturers, importers or authorised representatives of household washing machines and household washer-dryers shall ensure that the spare parts mentioned in points (a) and (b) can be replaced with the use of commonly available tools and without permanent damage to the household washing machine or household washer-dryer;		P
(d)	the list of spare parts concerned by point (a) and the procedure for ordering them shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at the latest two years after the placing on the market of the first unit of a model and until the end of the period of availability of these spare parts;		P
(e)	the list of spare parts concerned by point (b) and 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, when placing the first unit of a model on the market and until the end of the period of availability of these spare parts;		P
(2)	maximum delivery time of spare parts		P
	during the period mentioned under (1), the manufacturer, importer or authorised representative shall ensure the delivery of the spare parts within 15 working days after having received the order;		P
	in the case of spare parts concerned by point (1)(a), the availability of spare parts may be limited to professional repairers registered in accordance with point (3)(a) and (b);		P
(3)	access to Repair and Maintenance Information:		P
	after a period of two years after the placing on the market of the first unit of a model and until the end of the period mentioned under (1), the manufacturer, importer or authorised representative shall provide access to the household washing machine or household washer-dryer repair and maintenance information to professional repairers in the following conditions:		P

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
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(a)	the manufacturer's, importer's or authorised representative's website shall indicate the process for professional repairers to register for access to information; to accept such a request, the manufacturers, importers or authorised representatives may require the professional repairer to demonstrate that:		P
(i)	the professional repairer has the technical competence to repair household washing machines and household washer-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 exists in the Member States concerned, shall be accepted as proof of compliance with this point;		P
(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 registration within 5 working days from the date of request		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 registered, a professional repairer shall have access, within one working day after requesting it, to the requested repair and maintenance information. The information may be provided for an equivalent model or model of the same family, if relevant;		P

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
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(e)	<p>the household washing machine or household washer-dryer repair and maintenance information referred to in (a) shall include:</p> <ul style="list-style-type: none"> — the unequivocal household washing machine or household washer-dryer identification; — a disassembly map or exploded view; — technical manual of instructions for repair; — list of necessary repair and test equipment; — component and diagnosis information (such as minimum and maximum theoretical values for measurements); — wiring and connection diagrams; — diagnostic fault and error codes (including manufacturer-specific codes, where applicable); — instructions for installation of relevant software and firmware including reset software; and — information on how to access data records of reported failure incidents stored on the household washing machine or washer-dryer (where applicable); 		P
(4)	information requirements for refrigerant gases:		N/A
	without prejudice to Regulation (EU) No 517/2014 of the European Parliament and of the Council (2), for household washing machines and household washer-dryers equipped with a heat pump, the chemical name of the refrigerant gas used, or equivalent reference such as a commonly used and understood symbol, label or logo, shall be displayed permanently and in a visible and readable way on the exterior of the household washing machines or household washer-dryers, for example on the back panel. More than one reference can be used for the same chemical name;		N/A
(5)	requirements for dismantling for material recovery and recycling while avoiding pollution:		P
	manufacturers, importers or authorised representatives shall ensure that household washing machines and household washer-dryers are designed in such a way that the materials and components referred to in Annex VII to Directive 2012/19/EU can be removed with the use of commonly available tools		P
	manufacturers, importers or authorised representatives shall fulfil the obligations laid down in point 1 of Article 15 of Directive 2012/19/EU		P
9	INFORMATION REQUIREMENTS		—
	From 1 March 2021, household washing machines and household washer-dryers shall meet the following requirements:		—

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
	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 40-60 programme is able to clean normally soiled cotton laundry declared to be washable at 40 °C or 60 °C, together in the same cycle, and that this programme is used to assess the compliance with the EU eco-design legislation;		P
(b)	information that the most efficient programmes in terms of energy consumption are generally those that perform at lower temperatures and longer duration;		P
(c)	for household washer-dryers: information that the wash and dry cycle is able to clean normally soiled cotton laundry declared to be washable at 40 °C or 60 °C, together in the same cycle, and to dry it in such a way that it can be immediately stored in a cupboard, and that this programme is used to assess the compliance with the EU eco-design legislation;		P
(d)	information that loading the household washing machine or the household washer-dryer up to the capacity indicated by the manufacturer for the respective programmes will contribute to energy and water savings;		P
(e)	recommendations on the type of detergents suitable for the various washing temperatures and washing programmes;		P
(f)	information that noise and remaining moisture content are influenced by the spinning speed: the higher the spinning speed in the spinning phase, the higher the noise and the lower the remaining moisture content;		P
(g)	information on how to activate and deactivate the network connection (if applicable) and impact on energy consumption;		N/A
(h)	instruction on how to find the model information stored in the product database, as defined in Regulation (EU) 2019/2014 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

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(2)	<p>values for the following parameters:</p> <p>(a) rated capacity in kg;</p> <p>(b) programme duration, expressed in hours and minutes;</p> <p>(c) energy consumption, expressed in kWh/cycle;</p> <p>(d) water consumption, expressed in litres/cycle;</p> <p>(e) maximum temperature reached for minimum 5 minutes inside the laundry being treated in the washing cycle, expressed in degrees centigrade; and</p> <p>(f) remaining moisture content after the washing cycle, expressed in percentage of water content, and spinning speed at which this was achieved;</p> <p>for each of the following programmes (at least):</p> <p>(i) the eco 40-60 programme at the rated capacity, half of the rated capacity and a quarter of the rated capacity;</p> <p>(ii) the 20 °C programme at the rated capacity for this programme;</p> <p>(iii) one cotton programme at nominal temperature higher than or equal to 60 °C (if present) at the rated capacity for this programme;</p> <p>(iv) one programme for other textiles than cotton or a mix of textiles (if present) at the rated capacity for this programme;</p> <p>(v) one programme for the quick washing of lightly soiled laundry (if present) at the rated capacity for this programme;</p> <p>(vi) one programme for heavily soiled textiles (if present) at the rated capacity for this programme;</p> <p>(vii) for household washer-dryers: the wash and dry cycle at the rated capacity and at half of the rated capacity; and</p>		P
	<p>the information that the values given for programmes other than the eco 40-60 programme and the wash and dry cycle are indicative only;</p>		P

COMMISSION DELEGATED REGULATION (EU) No 2019/2023			
Cl.	Requirement-Test	Result-Remark	Verdict
(3)	<p>the user instructions shall also include instructions for the user to perform maintenance operations. Such instructions shall as a minimum include instructions for:</p> <p>(a) correct installation (including level positioning, connection to mains, connection to water inlets, cold and/or hot if appropriate);</p> <p>(b) correct use of detergent, softeners and other additives, and main consequences of incorrect dosage;</p> <p>(c) foreign object removal from the household washing machine or household washer-dryer;</p> <p>(d) periodic cleaning, including optimal frequency, and limescale prevention and procedure;</p> <p>(e) door opening between cycles, if appropriate;</p> <p>(f) periodic checks of filters, including optimal frequency, and procedure;</p> <p>(g) identification of errors, the meaning of the errors, and the action required, including identification of errors requiring professional assistance;</p> <p>(h) how to access professional repair (internet webpages, addresses, contact details);such instructions shall also include information on:</p> <p>(i) any implications of self-repair or non-professional repair for the safety of the end-user and for the guarantee;</p> <p>(j) the minimum period during which the spare parts for the household washing machine or the household washer-dryer are available.</p>		P

Table 1-1: Test condition 'Eco 40-60'			P
Items	Unit	Requirement	Measured
Test voltage	V	230±1%	230 VAC±1%
Test frequency	Hz	50±1%	50±1%
Water hardness	mmol/l	2,5±0,2	2,49-2,52
Hot water temperature	°C	<input type="checkbox"/> 60±2 <input type="checkbox"/> other:	—
Cold water temperature	°C	<input checked="" type="checkbox"/> 15±2 <input type="checkbox"/> 20±2	14,9-15,2
Water pressure	kPa	240±50	239-241
Ambient temperature	°C	23,0±2	22,9-23,1
Ambient temperature for conditioning of base load items	°C	20,0±2	20,5-20,7
Ambient humidity for conditioning of base load items	%	65,0±5	62-64
Detergent	Full (g)		160,0
	Half (g)		100,0
	Quarter (g)		70,0
Textiles	Full (g)		9782 4 sheets, 16 pillowcases, 28 towels
			4892 2 sheets, 8 pillowcases, 14 towels
	Half A (g)		4890 2 sheets, 8 pillowcases, 14 towels
			2408 -- sheets, 5 pillowcases, 11 towels
	Half B (g)		
	Quarter (g)		
Supplier	WFK		
Test strips	Batch number	108-215	
	supplier	Swissatest	
	Number of strips full load	10	
	Number of strips 1/2 load	5	
	Number of strips 1/4 load	3	
	Deadline of use	2021-07-31	
Test programme	<input checked="" type="checkbox"/> Eco 40-60		
Method of condition of base load item:	<input checked="" type="checkbox"/> An ambient controlled room/chamber <input type="checkbox"/> Bone dry method		

Table 1-2: Test condition 'WASH AND DRY'			P
Items	Unit	Requirement	Measured
Test voltage	V	230±1%	230 VAC±1%
Test frequency	Hz	50±1%	50±1%
Water hardness	mmol/l	2,5±0,2	2,46-2,52
Hot water temperature	°C	<input type="checkbox"/> 60±2 <input type="checkbox"/> other:	—
Cold water temperature	°C	<input checked="" type="checkbox"/> 15±2 <input type="checkbox"/> 20±2	15,0-15,0
Water pressure	kPa	240±50	240-241
Ambient temperature	°C	23,0±2	23,0-23,1
Ambient temperature for conditioning of base load items	°C	20,0±2	20,4-20,7
Ambient humidity for conditioning of base load items	%	65,0±5	63,0-64,0
Detergent	Full (g)		112,00
	Half (g)		76,00
Textiles	Full (g)		5891 2 sheets, 8 pillowcases, 23 towels
	Half A (g)		2959 1 sheet, 4 pillowcases, 12 towels
	Half B (g)		2932 1 sheet, 4 pillowcases, 11 towels
Supplier	WFK		
Test strips	Batch number	108-215	
	supplier	Swissatest	
	Number of strips full load	6	
	Number of strips 1/2 load	3	
	Deadline of use	2021-07-31	
Test programme	<input checked="" type="checkbox"/> Eco 40-60 + Dry level (press 9 times)		
Method of condition of base load item:	<input checked="" type="checkbox"/> An ambient controlled room/chamber <input type="checkbox"/> Bone dry method		

Table 2-1: Test data for reference machine 'Eco 40-60'									P
Test run				1	2	3	4	5	Average
Items	Symbol	Unit	Accuracy						
Date of test run		yr.m.d		2020 /08/30	2020 /08/31	2020 /09/01	2020 /09/02	2020 /09/03	
Mass of conditioned base load (without test strips)	M	g	1	4900	4900	4900	4900	4900	4900
Mass of base load before each test run (without test strips)	Mdry	g	1	4900	4888	4892	4891	4890	4892
Mass of detergent	Mdet	g	0,01	110,00	110,00	110,00	110,00	110,00	
Cold water consumption during main wash	V _{cm}	l	0,1	25,5	25,3	25,5	25,7	25,8	
Hot water consumption during main wash	V _{hm}	l	0,1	—	—	—	—	—	
Water consumption during main wash	V _m	l	0,1	25,5	25,3	25,5	25,7	25,8	
Total cold water consumption	V _{ct}	l	0,1	97,4	97,1	97,9	98,1	98,2	
Total hot water consumption	V _{ht}	l	0,1	—	—	—	—	—	
Total water consumption	V _t	l	0,1	97,4	97,1	97,9	98,1	98,2	
Electrical energy metered during the test	W _{et}	kWh	0,01	1,73	1,73	1,74	1,75	1,76	
Cold water energy correction determined during the test	W _{ct}	kWh	0,01	0,00	0,00	0,00	0,00	0,00	
Hot water energy correction determined during the test	W _{ht}	kWh	0,01	—	—	—	—	—	
Total energy	W _{et}	kWh	0,01	1,73	1,73	1,74	1,75	1,76	
Program time	t _t	min	1	75	75	75	75	75	
Spin speed	S	rpm	1	505	505	506	506	506	
Mass of base load after spin extraction	M _r	g	1	8828	8833	8835	8836	8832	
Remain moisture content	D	%	0,1	80,2	80,3	80,3	80,3	80,2	
Rinsing Effectiveness	I _R	k/kg	0,01	3,51	3,50	3,46	3,52	3,55	
Reflectance after wash: Sebum	xi		0,01	70,22	69,52	69,52	70,42	68,82	
Reflectance after wash: Carbon black/Oil	xi		0,01	45,39	47,10	45,94	45,62	44,53	
Reflectance after wash: Blood	xi		0,01	84,02	83,02	83,09	84,04	82,87	
Reflectance after wash: Cocoa	xi		0,01	64,01	65,16	65,14	64,41	66,60	
Reflectance after wash: Red Wine	xi		0,01	74,28	74,88	74,20	73,56	74,50	
Reflectance after wash: Sum	Ck		0,01	337,92	339,68	337,89	338,05	337,32	338,17

Table 2-2: Test data for reference machine 'WASH AND DRY'									P
Test run				1	2	3	4	5	Average
Items	Symbol	Unit	Accuracy						
Date of test run		yr.m.d		2020 /09/04	2020 /09/06	2020 /09/08	2020 /09/10	2020 /09/11	
Mass of conditioned base load (without test strips)	M	g	1	4900	4900	4900	4900	4900	4900
Mass of base load before each test run (without test strips)	Mdry	g	1	4900	4892	4894	4891	4892	4894
Mass of detergent	Mdet	g	0,01	110,00	110,00	110,00	110,00	110,00	
Cold water consumption during main wash	V _{cm}	l	0,1	25,5	25,7	25,3	25,4	25,8	
Hot water consumption during main wash	V _{hm}	l	0,1	—	—	—	—	—	
Water consumption during main wash	V _m	l	0,1	25,5	25,7	25,3	25,4	25,8	
Total cold water consumption	V _{ct}	l	0,1	97,6	97,8	97,3	97,9	97,2	
Total hot water consumption	V _{ht}	l	0,1	—	—	—	—	—	
Total water consumption	V _t	l	0,1	97,6	97,8	97,3	97,9	97,2	
Electrical energy metered during the test	W _{et}	kWh	0,01	1,72	1,74	1,73	1,72	1,73	
Cold water energy correction determined during the test	W _{ct}	kWh	0,01	0,00	0,00	0,00	0,00	0,00	
Hot water energy correction determined during the test	W _{ht}	kWh	0,01	—	—	—	—	—	
Total energy	W _{et}	kWh	0,01	1,72	1,74	1,73	1,72	1,73	
Program time	t _t	min	1	75	75	75	75	75	
Spin speed	S	rpm	1	506	505	505	505	505	
Mass of base load after spin extraction	M _r	g	1	8833	8829	8835	8831	8837	
Remain moisture content	D	%	0,1	80,3	80,2	80,3	80,2	80,3	
Rinsing Effectiveness	I _R	k/kg	0,01	3,52	3,53	3,51	3,50	3,54	
Reflectance after wash: Sebum	xi		0,01	69,78	69,59	70,72	71,70	70,65	
Reflectance after wash: Carbon black/Oil	xi		0,01	41,46	41,49	42,40	43,83	42,10	
Reflectance after wash: Blood	xi		0,01	85,40	85,28	84,41	84,83	85,82	
Reflectance after wash: Cocoa	xi		0,01	66,31	66,51	66,26	65,75	66,51	
Reflectance after wash: Red Wine	xi		0,01	76,53	76,71	76,10	75,54	76,32	
Reflectance after wash: Sum	Ck		0,01	339,48	339,58	339,89	341,65	341,40	340,40

Table 3: Test data for test washing machine 'Eco 40-60'													P
Treatment	Symbol	Unit	Accuracy	Eco 40-60									
Test runs				1	2	3	4	5	6	7	8	9	10
Load type				Half A	Half B	Half A	Half B	Full	Full	Full	Quarter	Quarter	Quarter
Date of test run		yr.m.d		2020 /08/30	2020 /08/30	2020 /08/31	2020 /08/31	2020 /09/01	2020 /09/02	2020 /09/03	2020 /09/01	2020 /09/02	2020 /09/03
Mass of conditioned base load (without test strips)	M	g	1	4892	4890	4892	4890	9782	9782	9782	2416	2416	2416
Mass of base load before each test run (without test strips)	M _{dry}	g	1	4892	4890	4882	4880	9775	9776	9775	2416	2411	2410
Mass of detergent	M _{det}	g	0,01	100,00	100,00	100,00	100,00	160,00	160,00	160,00	70,00	70,00	70,00
Ambient temperature	t _a	°C	0,1	23,0	23,1	23,0	22,9	23,0	22,8	23,0	23,1	23,0	23,0
Laboratory supply cold water inlet temperature	t _c	°C	0,1	15,0	15,1	15,0	15,2	15,0	15,0	15,1	14,9	15,0	14,9
Laboratory supply hot water inlet temperature	t _h	°C	0,1	—	—	—	—	—	—	—	—	—	—
Laboratory supply cold pressure water	p _c	kPa	10	239	240	240	241	240	240	241	239	240	240
Laboratory supply hot pressure water	p _h	kPa	10	—	—	—	—	—	—	—	—	—	—
Laboratory supply cold hardness water		mmol/l	0,01	2,50	2,52	2,50	2,50	2,51	2,50	2,50	2,50	2,50	2,49
Laboratory supply hot hardness water		mmol/l	0,01	—	—	—	—	—	—	—	—	—	—
Date of water preparation cold		yr.m.d		2020 /08/30	2020 /08/30	2020 /08/31	2020 /08/31	2020 /09/01	2020 /09/02	2020 /09/03	2020 /09/01	2020 /09/02	2020 /09/03
Date of water preparation hot		yr.m.d		—	—	—	—	—	—	—	—	—	—
Cold water consumption during main wash	V _{cm}	l	0,1	15,2	15,8	14,4	15,3	21,6	22,2	21,5	11,3	10,2	10,6
Hot water consumption during main wash	V _{hm}	l	0,1	—	—	—	—	—	—	—	—	—	—
Water consumption during main wash	V _m	l	0,1	15,2	15,8	14,4	15,3	21,6	22,2	21,5	11,3	10,2	10,6

Table 3: Test data for test washing machine 'Eco 40-60'													P
Treatment	Symbol	Unit	Accuracy	Eco 40-60									
Test runs				1	2	3	4	5	6	7	8	9	10
Load type				Half A	Half B	Half A	Half B	Full	Full	Full	Quarter	Quarter	Quarter
Total cold water consumption	V _{ct}	l	0,1	46,3	45,8	46,2	46,0	61,5	63,0	62,5	19,9	21,0	20,6
Total hot water consumption	V _{ht}	l	0,1	—	—	—	—	—	—	—	—	—	—
Total water consumption	V _t	l	0,1	46,3	45,8	46,2	46,0	61,5	63,0	62,5	19,9	21,0	20,6
Total electrical energy metered during the test	W _{et}	kWh	0,01	0,64	0,63	0,62	0,63	0,96	0,94	0,97	0,25	0,26	0,25
Total cold water energy correction determined during the test	W _{ct}	kWh	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total hot water energy correction determined during the test	W _{ht}	kWh	0,01	—	—	—	—	—	—	—	—	—	—
Total energy	W _{total}	kWh	0,01	0,64	0,63	0,62	0,63	0,96	0,94	0,97	0,25	0,26	0,25
Temperature reached for minimum 5 min inside the load	T _{wash}	°C	0,1	36,5	37,2	36,8	35,4	40,2	39,8	40,3	26,5	26,4	27,0
Main wash duration	t _m	min	1	136	137	136	136	188	190	188	152	148	150
Programme time	t _t	min	1	172	170	174	175	225	229	226	177	170	175
Spin speed	S	rpm	1	1410	1412	1410	1410	1409	1410	1410	1411	1410	1410
Mass of base load after spin extraction	M _r	g	1	7402	7392	7368	7367	14497	14528	14592	3651	3672	3642
Remain moisture content	D	%	0,1	51,3	51,2	50,6	50,7	48,2	48,5	49,2	51,1	52,0	50,7
Rinsing Effectiveness	I _R	k/kg	0,01	3,56	3,62	3,57	3,46	3,87	3,65	3,72	3,36	3,41	3,53
Reflectance after wash: Sebum	X _i		0,01	71,93	69,33	71,17	69,79	68,54	68,07	68,21	69,15	71,39	72,07
Reflectance after wash: Carbon black/Oil	X _i		0,01	45,62	45,06	46,13	45,93	45,26	45,72	44,72	47,13	46,11	46,07
Reflectance after wash: Blood	X _i		0,01	87,59	87,83	88,27	87,81	87,46	88,24	88,18	86,00	86,00	86,27
Reflectance after wash: Cocoa	X _i		0,01	72,36	71,79	71,85	72,46	66,87	70,30	69,22	74,45	72,49	76,34
Reflectance after wash: Red Wine	X _i		0,01	81,07	80,91	80,12	80,99	82,78	84,62	82,49	74,58	75,19	75,27

Table 3: Test data for test washing machine 'Eco 40-60'													P
Treatment	Symbol	Unit	Accuracy	Eco 40-60									
Test runs				1	2	3	4	5	6	7	8	9	10
Load type				Half A	Half B	Half A	Half B	Full	Full	Full	Quarter	Quarter	Quarter
Reflectance after wash: Sum	C _k		0,01	358,57	354,92	357,54	356,98	350,91	356,95	352,82	351,31	351,18	356,02
Washing Efficiency Index	I _w		0,001	1,060	1,050	1,057	1,056	1,038	1,056	1,043	1,039	1,038	1,053
Measured time for post programme phase LU	t _{mLU}	min	1	30				30			30		
Energy consumption (left on mode unstable)	W _{LU}	Wh	0,01	0,24				0,24			0,24		
Energy consumption (left on mode stable)	W _{LO}	Wh	0,01	—				—			—		
Energy consumption (off mode)	W _O	Wh	0,01	0,08				0,08			0,08		
Power (left-on mode unstable)	P _{LU}	W	0,01	0,48				0,48			0,48		
Power (left-on stable)	P _{LO}	W	0,01	—				—			—		
Power (off mode)	P _O	W	0,01	0,48				0,48			0,48		
Left on mode duration	t _L	min	1	2				2			2		

Table 4: Test data for test washing machine 'WASH AND DRY'										P
Treatment	Symbol	Unit	Accuracy	Half load		Half load		Full load		
Test runs				1	3	4	2	5	6	7
Load type				Partial A	Partial B	Partial B	Partial A	Full load	Full load	Full load
Date of test run		yr.m.d		2020 /09/04	2020 /09/06	2020 /09/07	2020 /09/05	2020 /09/08	2020 /09/10	2020 /09/11
Mass of conditioned base load (without test strips)	M	g	1	2959	2932	2959	2932	5891	5891	5891
Mass of base load before each test run (without test strips)	M _{dry}	g	1	2959	2928	2951	2924	5882	5884	5880
Mass of detergent	M _{det}	g	0,01	76,00	76,00	76,00	76,00	112,00	112,00	112,00
Mass of test load after drying (without strips)	M _{dry}	g	1	2962	2918	2946	2902	5947	5927	5936
Final moisture content	uf	0,1	1	0,1	-0,5	-0,4	-1,0	1,0	0,6	0,8
Ambient temperature	t _a	°C	0,1	23,1	23,0	23,0	23,0	23,0	23,0	23,0
Laboratory supply cold water inlet temperature	t _c	°C	0,1	15,0	15,0	15,0	15,0	15,0	15,0	15,0
Laboratory supply hot water inlet temperature	t _h	°C	0,1	—	—	—	—	—	—	—
Laboratory supply cold pressure water	p _c	kPa	10	240	241	240	240	240	240	240
Laboratory supply hot pressure water	p _h	kPa	10	—	—	—	—	—	—	—
Laboratory supply cold hardness water		mmol/l	0,01	2,50	2,50	2,52	2,50	2,50	2,46	2,50
Laboratory supply hot hardness water		mmol/l	0,01	—	—	—	—	—	—	—
Date of water preparation cold		yr.m.d		2020 /09/04	2020 /09/06	2020 /09/07	2020 /09/05	2020 /09/08	2020 /09/10	2020 /09/11
Date of water preparation hot		yr.m.d		—	—	—	—	—	—	—
Cold water consumption during main wash	V _{cm}	l	0,1	11,9	12,2	11,5	12,0	17,8	18,1	17,6
Hot water consumption during main wash	V _{hm}	l	0,1	—	—	—	—	—	—	—
Water consumption during main wash	V _m	l	0,1	11,9	12,2	11,5	12,0	17,8	18,1	17,6
Total cold water consumption	V _{ct}	l	0,1	58,1	57,8	57,3	58,0	108,5	107,8	108,2
Total hot water consumption	V _{ht}	l	0,1	—	—	—	—	—	—	—
Total water consumption	V _t	l	0,1	58,1	57,8	57,3	58,0	108,5	107,8	108,2
Total electrical energy metered during the test	W _{et}	kWh	0,01	2,56	2,63	2,58	2,61	4,35	4,41	4,29
Total cold water energy correction determined during the test	W _{ct}	kWh	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total hot water energy correction determined during the test	W _{ht}	kWh	0,01	—	—	—	—	—	—	—

Table 4: Test data for test washing machine 'WASH AND DRY'										P
Treatment	Symbol	Unit	Accuracy	Half load		Half load		Full load		
Test runs				1	3	4	2	5	6	7
Load type				Partial A	Partial B	Partial B	Partial A	Full load	Full load	Full load
Corrected energy consumption of the drying cycle	W _D	kWh	0,01	0,00	-0,01	-0,01	-0,02	0,04	0,02	0,03
Total energy	W _{total}	kWh	0,01	2,56	2,62	2,57	2,59	4,39	4,43	4,32
Temperature reached for minimum 5 min inside the load	T _{max}	°C	0,1	34,8	35,1	34,6	35,2	41,2	39,8	42,0
Main wash duration	t _m	min	1	145	146	144	146	152	150	151
Programme time (without cool-down)	t _t	min	1	329	328	331	330	461	462	458
Spin speed	S	rpm	1	1410	1411	1410	1410	1410	1409	1410
Rinsing Effectiveness	J _R	k/kg	0,01	3,58	3,62	3,35	3,28	3,92	3,87	3,76
Reflectance after wash: Sebum	x _i		0,01	71,70	70,28	71,50	72,33	70,94	70,90	70,04
Reflectance after wash: Carbon black/Oil	x _i		0,01	44,90	43,54	44,03	44,02	42,50	41,56	41,64
Reflectance after wash: Blood	x _i		0,01	87,62	87,50	87,18	88,57	88,87	87,48	88,70
Reflectance after wash: Cocoa	x _i		0,01	72,21	72,69	72,63	72,00	72,45	72,07	72,08
Reflectance after wash: Red Wine	x _i		0,01	80,36	79,85	81,21	80,44	80,43	80,52	81,73
Reflectance after wash: Sum	C _k		0,01	356,79	353,86	356,55	357,36	355,19	352,53	354,19
Washing Efficiency Index	I _w		0,001	1,048	1,040	1,047	1,050	1,043	1,036	1,041

Table 5: Summary of test result 'Eco 40-60'				P
Items	Symbol	Unit	Accuracy	Result
Rated capacity	c	kg	0,5	10,0
Weighting Factor	A		0,001	0,301
Weighting Factor	B		0,001	0,249
Weighting Factor	C		0,001	0,450
Energy consumption of the eco 40-60 programme at rated capacity	E _{w, full}	kWh	0,001	0,957
Energy consumption of the eco 40-60 programme at half of rated capacity	E _{w, half}	kWh	0,001	0,630
Energy consumption of the eco 40-60 programme at quarter of rated capacity	E _{w, quarter}	kWh	0,001	0,253
Weighted energy consumption	E _w	kWh	0,001	0,559
Weighted energy consumption per 100 cycles	E ₁₀₀	kWh	1	56
Standard energy consumption	SCE _w	kWh	0,001	0,988
Energy Efficiency Index	EEI		0,1	56,6
Energy Efficiency Class				B
Water consumption of the eco 40-60 programme at rated capacity	W _{w, full}	liter	0,1	62,3
Water consumption of the eco 40-60 programme at half of rated capacity	W _{w, half}	liter	0,1	46,1
Water consumption of the eco 40-60 programme at quarter of rated capacity	W _{w, quarter}	liter	0,1	20,5
Weighted water consumption per cycle	W _w	liter	1	39
Washing efficiency index of the eco 40-60 programme at rated capacity	l _{w, full}		0,01	1,06
Washing efficiency index of the eco 40-60 programme at half of rated capacity	l _{w, half}		0,01	1,05
Washing efficiency index of the eco 40-60 programme at quarter of rated capacity	l _{w, quarter}		0,01	1,04
Rinsing effectiveness of the eco 40-60 programme at rated capacity	l _{r, full}	g/kg	0,1	3,7
Rinsing effectiveness of the eco 40-60 programme at half of rated capacity	l _{r, half}	g/kg	0,1	3,6
Rinsing effectiveness of the eco 40-60 programme at quarter of rated capacity	l _{r, quarter}	g/kg	0,1	3,4
Programme duration of the eco 40-60 programme at rated capacity	t _{cap, full}	min	1	227
Programme duration of the eco 40-60 programme at half of rated capacity	t _{cap, half}	min	1	173
Programme duration of the eco 40-60 programme at quarter of rated capacity	t _{cap, quarter}	min	1	174
Temperature reached for minimum 5 min inside the load during eco 40-60 programme at rated capacity	T _{MAX, full}	°C	1	40
Temperature reached for minimum 5 min inside the load during eco 40-60 programme at half of rated capacity	T _{MAX, half}	°C	1	36

Temperature reached for minimum 5 min inside the load during eco 40-60 programme at quarter of rated capacity	T_{MAX} , quarter	°C	1	27
Spin speed in the spinning phase of the eco 40-60 programme at rated capacity	S, full	rpm	1	1410
Spin speed in the spinning phase of the eco 40-60 programme at half of rated capacity	S, half	rpm	1	1411
Spin speed in the spinning phase of the eco 40-60 programme at quarter of rated capacity	S, quarter	rpm	1	1410
Remaining moisture content of the eco 40-60 programme at rated capacity	D, full	%	0,1	48,6
Remaining moisture content of the eco 40-60 programme at half of rated capacity	D, half	%	0,1	51,0
Remaining moisture content of the eco 40-60 programme at quarter of rated capacity	D, quarter	%	0,1	51,3
Weighted remaining moisture content	D	%	1	50
Spin-drying efficiency class				B
Power consumption in 'off mode'	P_o	W	0,01	0,48
Power consumption in 'standby mode'	P_{sm}	W	0,01	—
Does 'standby mode' include the display of information?				—
Time on switching automatically to off-mode or standby mode	T_s	min	1	2
Time on delay start mode	T_{ds}	h	1	24
Power consumption on delay start mode	P_{ds}	W	0,01	3,60
Power consumption in 'standby mode' in condition of networked standby	P_{sm}	W	0,1	—
Airborne acoustical noise emissions during eco 40-60 programme (spinning phase)		(dB(A) re 1 pW)	1	—

Table 6: Summary of test result 'WASH AND DRY'					P
Items	Symbol	Unit	Accuracy	Result	Standard deviation
Rated washing capacity	c	kg	0,5	10,0	
Rated washing-drying capacity	c	kg	0,5	7,0	
Energy consumption of the wash and dry cycle at rated capacity	E _{WD, full}	kWh	0,001	4,380	0,056
Energy consumption of the wash and dry cycle at half of rated capacity	E _{WD, half}	kWh	0,001	2,585	0,026
Weighted energy consumption	E _{WD}	kWh	0,001	3,662	0,028
Standard energy consumption	SCE _{WD}	kWh	0,001	4,594	
Energy Efficiency Index	EEI _{WD}		0,1	79,7	
Energy Efficiency Class				E	
Water consumption of the wash and dry cycle at rated capacity	W _{WD, full}	liter	0,1	108,2	0,351
Water consumption of the wash and dry cycle at half of rated capacity	W _{WD, half}	liter	0,1	57,8	0,356
Weighted water consumption per cycle	W _{WD}	liter	1	88	0,254
Washing efficiency index of the wash and dry cycle at rated capacity	J _{W, full}		0,01	1,04	0,004
Washing efficiency index of the wash and dry cycle at half of rated capacity	J _{W, half}		0,01	1,05	0,004
Rinsing effectiveness of the wash and dry cycle at rated capacity	J _{R, full}	g/kg	0,1	3,9	0,082
Rinsing effectiveness of the wash and dry cycle at half of rated capacity	J _{R, half}	g/kg	0,1	3,5	0,168
Cycle duration of the wash and dry cycle at rated capacity	t _{cap, full}	min	1	460	2,082
Cycle duration of the wash and dry cycle at half of rated capacity	t _{cap, half}	min	1	330	1,291
Temperature reached for minimum 5 min inside the load during wash and dry cycle at rated capacity	T _{MAX, full}	°C	1	41	1,114
Temperature reached for minimum 5 min inside the load during wash and dry cycle at half of rated capacity	T _{MAX, half}	°C	1	35	0,275
Spin speed in the spinning phase of the wash and dry cycle at rated capacity	S, full	rpm	1	1410	
Spin speed in the spinning phase of the wash and dry cycle at half of rated capacity	S, half	rpm	1	1410	
Final moisture content of the wash and dry cycle at rated capacity	uF, full	%	0,1	0,8	0,200
Final moisture content of the wash and dry cycle at half of rated capacity	uF, half	%	0,1	-0,5	0,451
Final moisture content of the wash and dry cycle	uF, max	%	0,1	0,8	0,277
Airborne acoustical noise emissions during wash and dry cycle (spinning phase)		(dB(A) re 1 pW)	1	—	

Table 7 List of test equipment used:					
Equipments name	Equipments Model No./ID	Range used	Accuracy	Resolution	Calibration due date
Temp.& Humidity Chamber (Wash machine Chamber)	AHE101-01	Power (0-10 kW)	Measurement uncertainty (0,5 %)	OK	2021/06/10
		Current (0-20 A)	Measurement uncertainty (0,5 %)	OK	2021/06/10
		Frequency (45-65 Hz)	±0,05 Hz	OK	2021/06/10
		Thermocouples (-30 - 200 °C)	±0,5 °C	OK	2021/06/10
		Watt-hour meter	0,0001 kW h	OK	2021/06/10
Flowmeter	AHE101-01J	0,1-2m³/h	±0,1%	OK	2021/06/10
Tachometer	AHE106-01	10-99990RPM	0,04%±2dgts±0,06RPM	OK	2021/06/10
Water-Quality Hardmeter	AHE112-01	0,01-0,1;±5%FS	0-10mmol/L	OK	2021/06/10
Electronic scales	AHE063-01A	500 g	0,1 g	OK	2021/06/12
Electronic scales	AHE107-03	150 kg	±5 g	OK	2021/06/12
Pressure meter	AHE085-01	350KPa	—	OK	2021/06/11
Temperature and Humidity Instrument	AHE099-01	±0,4 °C (-20~+50 °C)±1digit; ±2% RH(2 to 98% RH); +0,03%RH/K ±1digit	-20 °C ~55 °C; 0~100%RH	OK	2021/06/09

Photo documentation

Details of: Front (WDQY1014EVJM, WDQY1014EVJM*)

View:

- general
- front
- rear
- right
- left
- top
- bottom



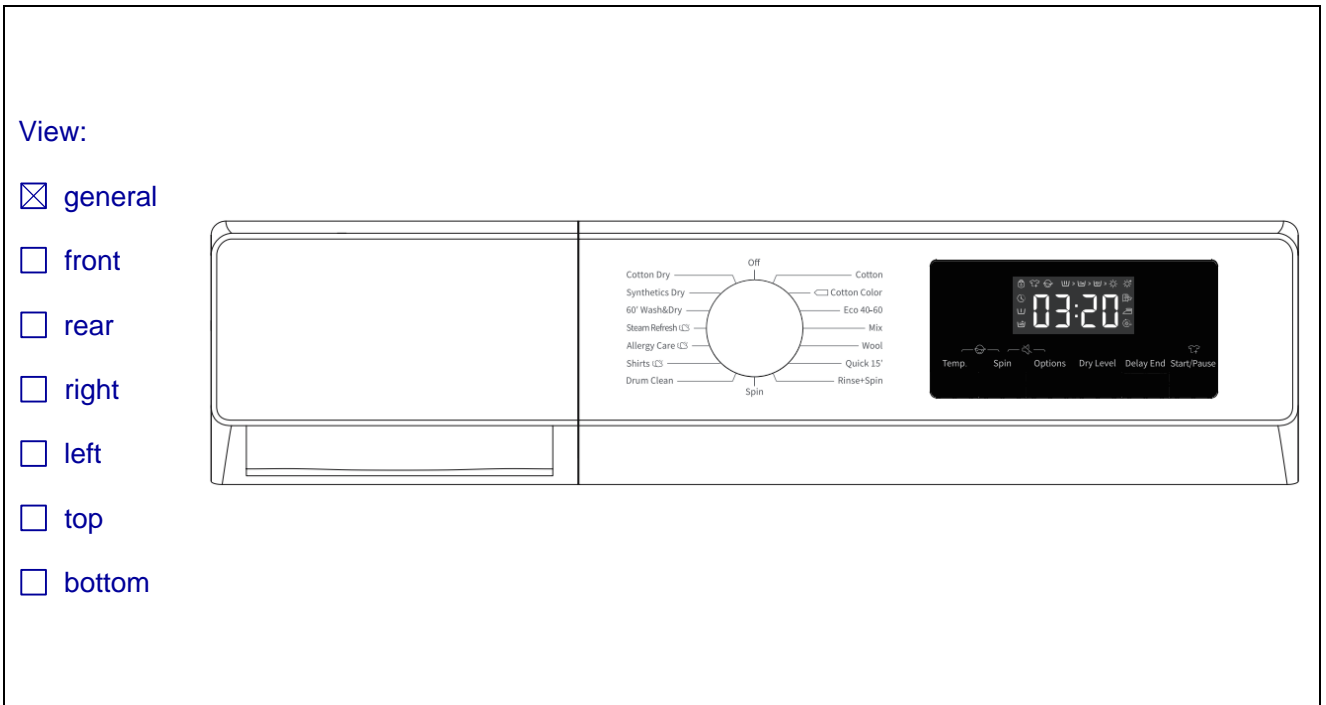
Details of: Front (WDMY1014EVJM, WDMY1014EVJM*)

View:

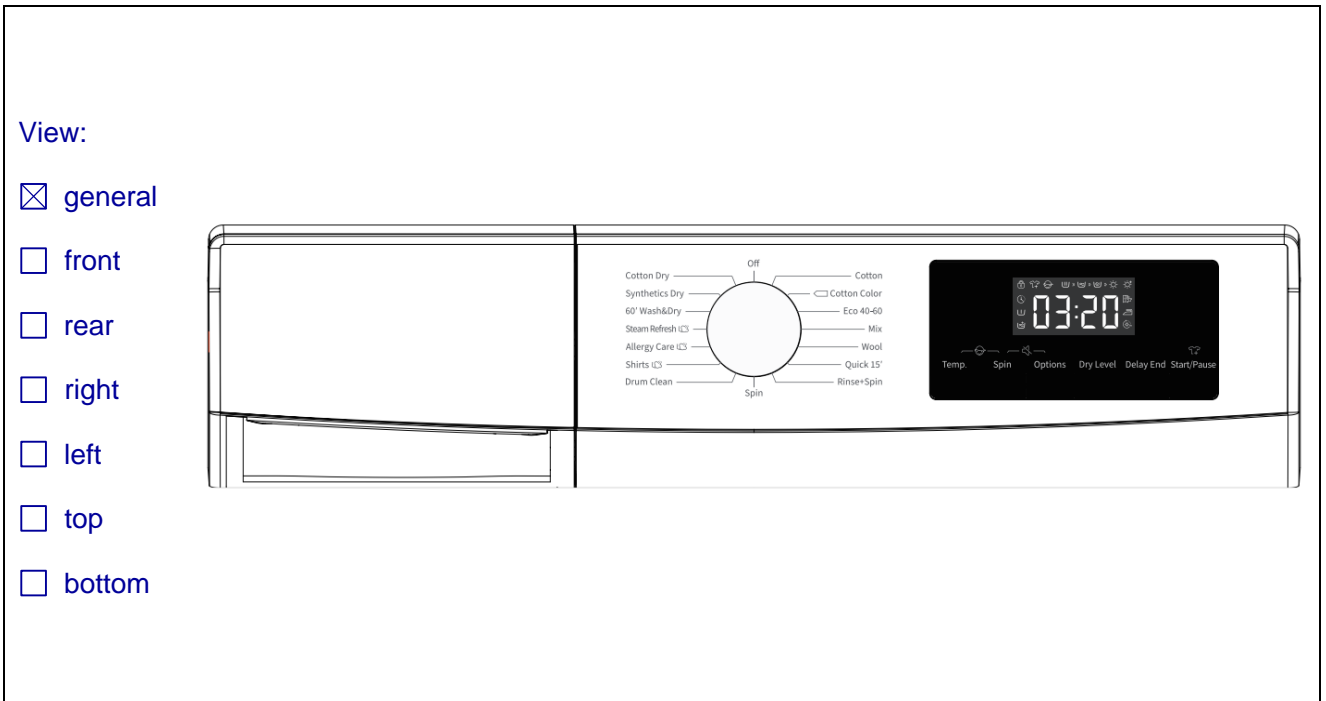
- general
- front
- rear
- right
- left
- top
- bottom



Details of: Control panel (WDQY1014EVJM, WDQY1014EVJM*)



Details of: Control panel (WDMY1014EVJM, WDMY1014EVJM*)



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