

TESTING LABORATORY

Report Ref. **20164001581/10**

TEST REPORT

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APPLIANCE TESTED: Heat pump
TRADE NAME: Energie
MODEL: Aquapura Monobloc 100 ESM
SERIAL NUMBER: 41001000053

COMMISSION REGULATION (EU) **No 812/2013 of 18 February 2013** - supplementing Directive 2010/30/EU of the European Parliament and of the council with regard to the energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device. (*Annex II, VII and VIII*)
No 814/2013 of 2 August 2013 - implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water heaters and hot water storage tanks. (*Annex III and IV*)
Commission communication **2014/C 207/03**.

STANDARD **Based on prEN 16147: 2015** – Heat pumps with electrically driven compressors – Testing and requirements for marking of domestic hot water units. (sections 7.7, 7.8, 7.9, 7.10, 7.12 and 7.13)

LOAD PROFILE: M

HEAT SOURCE: Indoor ambient air (inlet dry-bulb: 20 °C / inlet wet-bulb: 15 °C)

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MANUFACTURER: ENERGIE EST, Ida
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Date of the reception of the appliance: 2016-11-23

Date of the end of the tests: 2016-11-28

Date of the report: 2016-11-28

Technician:



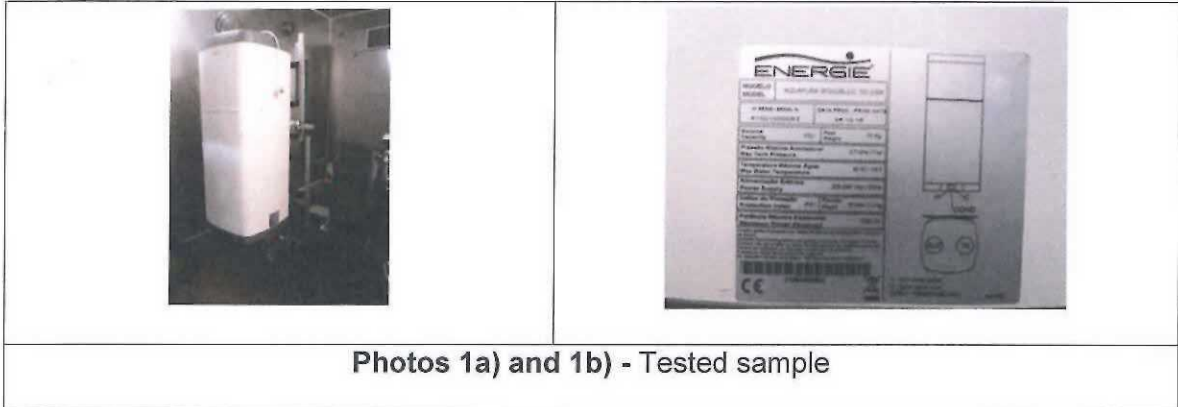
(Ricardo Tavares)

The Technical Responsible:



(Pedro Castro)

1 Sample description



NOMINAL DATA:

Storage tank capacity:	100 l
Power supply voltage:	220 – 240 Vac
Frequency:	50 Hz
Type and mass of refrigerant charge:	R134a - 1,2 kg
Off-peak product:	No

TEST CONDITIONS:

Load profile:	M
Installation type:	Wall
Type of heat source:	Indoor ambient air
Heat source temperature, inlet dry-bulb:	20 °C
Heat source temperature, inlet wet-bulb:	15 °C
Sanitary cold water temperature, inlet:	10 °C
Set-up temperature:	53 °C
Ambient temperature for storage tank:	20 °C

Notes:

Technician: _____

(Ricardo Tavares)

TEST RESULTS:

Heating up period	Result
Total electricity consumption during the test, W_{eh-HP}	1,150 kWh
Heating up time, t_h	02h:21min:29s

Standby power input	Result
Total energy input during the last on-off-cycle, W_{es-HP}	1,150 kWh
Duration of the last on-off-cycle of the heat pump, t_{es}	29h:02min:58s
Standby power input, P_{es}	0,013 kW
Primary standby power loss, P_{stby}	0,034 kW
Ambient correction term, Q_{cor}	- 0,185 kWh

Water draw-offs	Result
Load profile	M
Reference energy, Q_{ref}	5,845 kWh
Load profile duration, t_{TTC}	33h:40min:51s
Total measured electrical energy input, $W_{EL-M-LP}$	2,130 kWh
Total electrical energy consumption during the whole profile, W_{EL-LP}	2,103 kWh
Total useful energy content during the load profile, Q_{LP}	5,951 kWh
Coefficient of performance, COP_{DHW}	2,830
Daily electricity consumption, Q_{elec}	2,065 kWh
Annual consumption of electric energy, AEC	437 kWh/a
Water heating energy efficiency, η_{wh}	117,40 %
Water heating energy efficiency class	A+

Draw-off (maximum flow rate of the considered load profile)	Result
Reference hot water temperature, θ'_{wh}	51,2 °C
Maximum hot water volume, V_{40}	108,7 l

Technician:



(Ricardo Tavares)