

2.10 Technical information of European regulations

(1) Lot1

(a) Summary

This document is intended to clarify that the water heater manufactured by us is adapted to European ErP (Ecodesign requirements for energy-related Products) directive Lot1 (space heater and combination heater) and Lot2 (water heater and water storage tanks).

These units are electric mains-operated heat pump combination heaters with a rated heating capacity of 30kW and less and are assessed on the basis of the above-mentioned directive.

(b) Applied Directives and Standard

DIRECTIVE

“DIRECTIVE 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products”

“DIRECTIVE 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products”

REGULATION

“COMMISSION DELEGATED REGULATION (EU) No.811/2013 of 18 February 2013 ” supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of space heaters, combination heaters, packages of spec heater, temperature control and solar device and packages of combination heater, temperature control and solar device

“COMMISSION DELEGATED REGULATION (EU) No. 813/2013 of 2 August 2013”

Implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters

(c) Target Model

Heat Pump Combination Heater	ESA30EH2-25
Hot Water Storage Tank	GX-1000-RB

(d) Specification of the apparatus

1) The name and address of the supplier

Manufacture's name and address
MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD. 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 100-8332, Japan http://www.mhi-mth.co.jp
Branch name and address
MITSUBISHI HEAVY INDUSTRIES AIR-CONDITIONING EUROPE, LTD. 5 The Square, Stockley Park, Uxbridge, Middlesex, UB11 1ET, UK Tel : +44-333-207-4072 Fax : +44-333-207-4089 http://www.mhiaec.com MHIAE SERVICES B.V. (Wholly-owned subsidiary of MITSUBISHI HEAVY INDUSTRIES AIR-CONDITIONING EUROPE, LTD.) Herikerbergweg 238, Luna ArenA, 1101 CM Amsterdam, Netherlands Tel : +31-20-406-4535 http://www.mhieservices.com/

2) Heating energy efficiency

Model name		ESA30EH2-25
Water heater load profile		XXL
Seasonal space heating energy efficiency class		A ⁺
Water heating energy efficiency class		A
Rated heat output	Average	27kW
	Warmer	30kW
	Colder	19kW
Annual energy consumption for space heating	Average	14822kWh
	Warmer	9199kWh
	Colder	15499kWh
Annual energy consumption for water heating	Average	1909kWh
	Warmer	1683kWh
	Colder	3467kWh
Seasonal space heating energy efficiency	Average	146%
	Warmer	174%
	Colder	127%
Water heating energy efficiency	Average	114%
	Warmer	130%
	Colder	63%
Off peak operation		Correspond
Sound power level		77 dB(A)

Storage tank

Lapesa Grupo Empresarial, S. L	
Model name	GXM-R-500×2 or GX-1000-RB
Energy efficiency class	C
Standing loss	100W×2 or 125 W
Storage volume	500L×2 or 1000 L

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(e) Technical Information

1) Function

Manufacturer's specification for intended use;

The appliance is with an outdoor unit and indoor unit. The outdoor unit is an air/water heat pumps including electrical-ly driven compressor. The indoor unit is a domestic hot water storage tank and floor heating panel.

2) Technical data of water heater

Model name	ESA30EH2-25
Rated voltage (V)	3N~, 380 / 400 / 415
Rated frequency (Hz)	50 / 60
Rated heating capacity (kW)	30
Net weight (kg)	375
Refrigerant	R744 (CO ₂)
Mass of refrigerant (kg)	8.5

Sound power level	Criteria	Judgement
77	≤78	○

※The sound power level is measured under heating conditions at outdoor air temperature 7°CDB/6°CWB, and water inlet temperature 30°C.

(2) Lot 11 (Glandless circulators)**(a) Summary**

This document is intended to clarify that the circulators integrated in our product are adapted to European ErP (Ecodesign requirements for energy-related Products) directive Lot11 (glandless standalone circulators and glandless circulators integrated in products).

(b) Applied directives and standard

2009/125/EC

- DIRECTIVE 2009/125/EC of the European parliament and of the council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products

REGULATION

- COMMISSION REGULATION (EC) No. 641/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European parliament and of the council with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products
- COMMISSION REGULATION (EU) No. 622/2012 of 11 July 2012 amending Regulation (EC) No 641/2009 with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products

(c) Product information**1) Function**

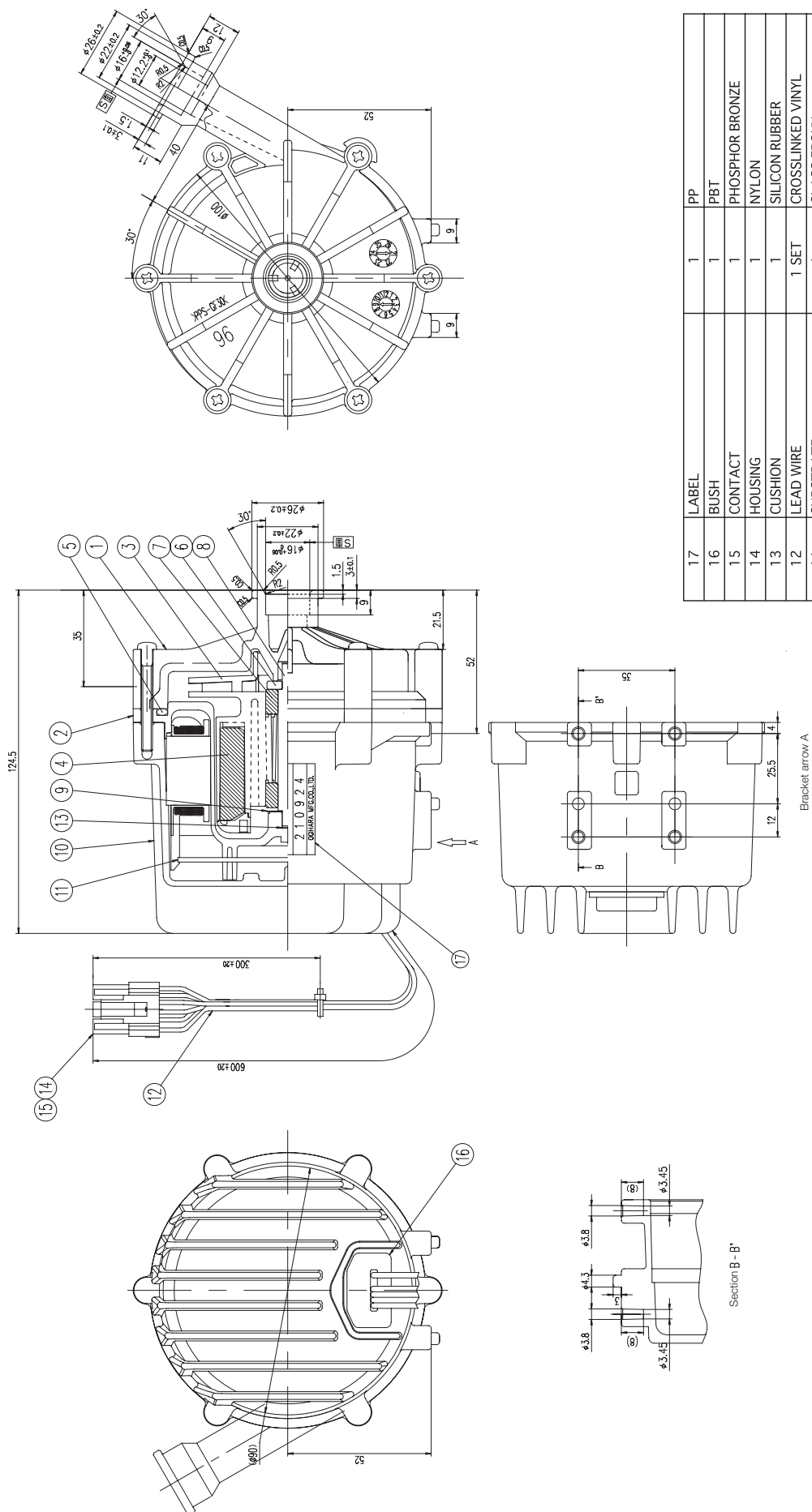
The apparatus is a DC brushless pump integrated in the heat pump water heater. The function of this apparatus is circulating water inside the water heater.

2) Specification of the water heater and the water pump

Specification of the water heater	
Model name	ESA30EH2-25
Rated voltage (V)	3 Phase, 380 / 400 / 415
Rated heating capacity (kW)	30
Refrigerant	R744 (CO ₂)
Mass of refrigerant (kg)	8.5

Specification of the water pump	
Drawing number	SSA451A014
EEI: Energy efficiency index	≤ 0.23
Rated voltage (V)	DC 339
Control power source (V)	DC 18±1.6
Control Signal (V)	0-8.2±1.6V
Rated power consumption (W)	95

*The benchmark for the most efficient circulators is $EEI \leq 0.20$.



17	LABEL	1	PP
16	BUSH	1	PBT
15	CONTACT	1	PHOSPHOR BRONZE
14	HOUSING	1	NYLON
13	CUSHION	1	SILICON RUBBER
12	LEAD WIRE	1 SET	CROSSLINKED VINYL
11	SUBSTRATE	1	GLASS EPOXY
10	BRACKET	1	ALUMINUM
9	WASHER	1	STTEL
8	SHAFT	1	ALUMINA CERAMIC
7	BEARING	1	CARBON
6	THRUST WASHER	1	ALUMINA CERAMIC
5	O-RING	1	FKM
4	MAGNET	1	FERITE
3	IMPELLA	1	PPS
2	BACK CASING	1	PPS
1	PUMP CASING	1	PPS
No.	PART NAME	QUANTITY	MATERIAL