
	<b>Heat Pump KEYMARK</b>	
Certificate of Approval for the Heat Pump KEYMARK Scheme		041-K003-01

<b>Certificate holder</b>	<b>Mitsubishi Heavy Industries Air-conditioning Europe Ltd.</b> <b>7 Roundwood Avenue</b> <b>Stockley Park, Uxbridge</b> <b>Middlesex</b> <b>UB11 1AX</b>
<b>Production site(s)</b>	Tokyo, Japan
<b>Product</b>	Heat Pumps
<b>Product Type</b>	Air/Water Heat Pump
<b>Sub type and Models</b>	<b>ESA30E-25</b> (ESA30E-25)
<b>Certificate number</b>	041-K003-01
<b>Testing basis</b>	EN 14511:2013-12 EN 12309:2015-03 EN 16147:2011-04 EN 14825:2013-12 EN 12102:2013-10 KEYMARK Certification Scheme for Heat Pumps (2015-06)

This certificate and appendix is maintained and held in force through periodic review and verification.



John Holden

28 September 2017

28 September 2017

Signed for BRE Global Ltd

Business Group Manager


Date of Issue

Date of First issue




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**Data has to be declared for all Models inside a sub-type.**

**1. HEAT PUMPS FOR DOMESTIC HOT WATER (DHW) (IF APPLICABLE) **4****

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<b>Certificate data</b>	
Certificate holder name	Mitsubishi Heavy Industries Air-conditioning Europe Ltd.
Address	7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, UK
Type of heat pump	Air to Water heat Pump
Reg. No.	041-K003-01
Certification Body	BRE Global
Name of testing laboratory	BSRIA

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## 1. Heat pumps for Domestic Hot Water (DHW)

	ESA30E-25	Model 2	Model...
<b>General data</b>			
Refrigerant	R744 (CO2)		
Mass of refrigerant [kg]	8.5		
GWP	1		
Frequency [Hz]	50		
Voltage [V]	3phase, 380/400/415		
Off-peak product (yes/no)	YES, from R/C and can also be controlled from external input/output		
<b>Technical data – average climate</b>			
Declared load profile	XXL		
Efficiency $\eta_{dhw}$ in %	114		
Heating up time h:min	01:09		
Standby power input W	183		
Reference hot water temperature °C	51.03		
Mixed water at 40°C	1,647		
Sound power level indoor if relevant) [dB(A)]	Not relevant		
Sound power level outdoor [dB(A)]	70		
<b>Technical data – colder climate</b>			
Declared load profile	XXL		
Efficiency $\eta_{dhw}$ in %	64.9		
Heating up time h:min	00:56		
Standby power input W	392		
Reference hot water temperature °C	51.03		
Mixed water at 40°C	1,647		
Sound power level indoor if relevant) [dB(A)]	Not relevant		
Sound power level outdoor [dB(A)]	70		
<b>Technical data – warmer climate</b>			
Declared load profile	XXL		
Efficiency $\eta_{dhw}$ in %	133.6		
Heating up time h:min	01:08		
Standby power input W	125		
Reference hot water temperature °C	51.03		
Mixed water at 40°C	1,647		
Sound power level indoor if relevant) [dB(A)]	Not relevant		
Sound power level outdoor [dB(A)]	70		