

CERTIFICATE

Certificate holder

TOSHIBA AIR CONDITIONING
Porsham Close
Belliver Industrial Estate
Plymouth
PL6 7DB
UNITED KINGDOM

Production facility

Kawasaki

Product

Air/Water Heat pumps

Type, Model

ESTIA HWS-1105/HWS-1405H

Testing basis

DIN EN 14511-1; DIN EN 14511-2; DIN EN 14511-3; DIN EN 14511-4:2019-07
DIN EN 14825:2019-07
DIN EN 12102-1:2018-02
European KEYMARK Scheme for Heat Pumps Rev.6 (2019-03)

Mark of conformity**Registration No.**

011-1W0343

Valid until

2029-11-30

Right of use

This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number.

See annex for further information.

S. Scholz



ANNEX

Page 1 of 1

Certificate	011-1W0343 dated 2019-11-26
Technical Data	See Heat Pump KEYMARK database for detailed information
Testing laboratory/ Inspection body	Interstaatliche Hochschule für Technik Buchs NTB Wärmepumpen-Testzentrum WPZ Werdenbergstr. 4 9471 Buchs SWITZERLAND
Test report(s)	LW-406-19-19 dated 2019-07-22



This information was downloaded from the HP KEYMARK database on 9 Jan 2020

Summary of	ESTIA HWS-1105/HWS-1405H	Reg. No.	011-1W0343
Certificate Holder			
Name	TOSHIBA AIR CONDITIONING		
Address	Porsham Close, Belliver Industrial Estate	Zip	PL6 7DB
City	Plymouth	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Heat Pump Test Center WPZ		
Subtype title	ESTIA HWS-1105/HWS-1405H		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	HFC-410a		
Mass Of Refrigerant	2.7 kg		
Certification Date	26.11.2019		
Testing basis	n/a		

Model: HWS-1105H-E/HWS-1405XWHM3-E

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	163 %	130 %
Prated	10.00	9.00
SCOP	4.17	3.35
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7 °C	8.50 kW	8.20 kW
COP Tj = -7 °C	2.86	2.12
Pdh Tj = +2 °C	4.80 kW	4.90 kW
COP Tj = +2 °C	4.61	3.56

This information was downloaded from the HP KEYMARK database on 9 Jan 2020

Pdh T _j = +7 °C	3.20 kW	3.20 kW
COP T _j = +7 °C	5.34	4.34
Pdh T _j = 12 °C	2.70 kW	2.70 kW
COP T _j = 12 °C	6.37	5.54
Pdh T _j = T _{biv}	8.50 kW	8.20 kW
COP T _j = T _{biv}	2.86	2.12
Pdh T _j = TOL	8.50 kW	8.20 kW
COP T _j = TOL	2.86	2.12
Rated airflow rate	5310 m ³ /h	5310 m ³ /h
WTOL	55 °C	55 °C
P _{off}	17 W	17 W
PTO	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Q _{he}	4785 kWh	5718 kWh

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.15 kW	3.43 kW
COP	4.88	2.93
Indoor water flow rate	1.93 m ³ /h	1.08 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Model: HWS-1105H-E/HWS-1405XWHT6-E

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	163 %	130 %
Prated	10.00	9.00
SCOP	4.17	3.35
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.50 kW	8.20 kW
COP Tj = -7°C	2.86	2.12
Pdh Tj = +2°C	4.80 kW	4.90 kW
COP Tj = +2°C	4.61	3.56

This information was downloaded from the HP KEYMARK database on 9 Jan 2020

Pdh Tj = +7°C	3.20 kW	3.20 kW
COP Tj = +7°C	5.34	4.34
Pdh Tj = 12°C	2.70 kW	2.70 kW
COP Tj = 12°C	6.37	5.54
Pdh Tj = Tbiv	8.50 kW	8.20 kW
COP Tj = Tbiv	2.86	2.12
Pdh Tj = TOL	8.50 kW	8.20 kW
COP Tj = TOL	2.86	2.12
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
PTO	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	4785 kWh	5718 kWh

Heating

This information was downloaded from the HP KEYMARK database on 9 Jan 2020

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.15 kW	3.43 kW
COP	4.88	2.93
Indoor water flow rate	1.93 m ³ /h	1.08 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Model: HWS-1105H-E/HWS-1405XWHT9-E

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	163 %	130 %
Prated	10.00	9.00
SCOP	4.17	3.35
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7 °C	8.50 kW	8.20 kW
COP Tj = -7 °C	2.86	2.12
Pdh Tj = +2 °C	4.80 kW	4.90 kW
COP Tj = +2 °C	4.61	3.56

This information was downloaded from the HP KEYMARK database on 9 Jan 2020

Pdh Tj = +7°C	3.20 kW	3.20 kW
COP Tj = +7°C	5.34	4.34
Pdh Tj = 12°C	2.70 kW	2.70 kW
COP Tj = 12°C	6.37	5.54
Pdh Tj = Tbiv	8.50 kW	8.20 kW
COP Tj = Tbiv	2.86	2.12
Pdh Tj = TOL	8.50 kW	8.20 kW
COP Tj = TOL	2.86	2.12
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
PTO	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	4785 kWh	5718 kWh

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.15 kW	3.43 kW
COP	4.88	2.93
Indoor water flow rate	1.93 m ³ /h	1.08 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Model: HWS-1405H-E/HWS-1405XWHM3-E

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	159 %	129 %
Prated	10.00	9.00
SCOP	4.08	3.31
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7 °C	9.20 kW	8.00 kW
COP Tj = -7 °C	2.68	2.07
Pdh Tj = +2 °C	5.10 kW	4.80 kW
COP Tj = +2 °C	4.43	3.48

This information was downloaded from the HP KEYMARK database on 9 Jan 2020

Pdh Tj = +7 °C	3.40 kW	3.20 kW
COP Tj = +7 °C	5.39	4.34
Pdh Tj = 12 °C	2.70 kW	2.70 kW
COP Tj = 12 °C	6.37	5.93
Pdh Tj = Tbiv	9.20 kW	8.00 kW
COP Tj = Tbiv	2.68	2.07
Pdh Tj = TOL	9.20 kW	8.00 kW
COP Tj = TOL	2.68	2.07
Rated airflow rate	5590 m³/h	5590 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
PTO	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5278 kWh	5701 kWh

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	13.15 kW	11.52 kW
El input	2.92 kW	3.98 kW
COP	4.50	2.89
Indoor water flow rate	2.41 m ³ /h	1.24 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Model: HWS-1405H-E/HWS-1405XWHT6-E

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	159 %	129 %
Prated	10.00	9.00
SCOP	4.08	3.31
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7 °C	9.20 kW	8.00 kW
COP Tj = -7 °C	2.68	2.07
Pdh Tj = +2 °C	5.10 kW	4.80 kW
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COP Tj = 12 °C	6.37	5.93
Pdh Tj = Tbiv	9.20 kW	8.00 kW
COP Tj = Tbiv	2.68	2.07
Pdh Tj = TOL	9.20 kW	8.00 kW
COP Tj = TOL	2.68	2.07
Rated airflow rate	5590 m³/h	5590 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
PTO	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5278 kWh	5701 kWh

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	13.15 kW	11.52 kW
El input	2.92 kW	3.98 kW
COP	4.50	2.89
Indoor water flow rate	2.41 m ³ /h	1.24 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Model: HWS-1405H-E/HWS-1405XWHT9-E

General Data

Power supply	1x230V 50Hz
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Average Climate

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	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825

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WTOL	55 °C	55 °C
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PCK	14 W	14 W
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Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5278 kWh	5701 kWh

Heating

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EN 14511-4

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Starting and operating test	passed