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Summary of	ESTIA HWS-P1105H8/HWS-P1405H8R-E	Reg. No.	011-1W0348
Certificate Holder			
Name	TOSHIBA AIR CONDITIONING		
Address	Porsham Close, Belliver Industrial Estate	Zip	PL6 7DB
City	Plymouth	Country	United Kingdom
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Heat Pump Test Center WPZ		
Subtype title	ESTIA HWS-P1105H8/HWS-P1405H8R-E		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2.7 kg		
Certification Date	26.11.2019		

Model: HWS-P1105H8R-E/HWS-P1105XWHM3-E

General Data	
Power supply	1x230V 50Hz

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	173 %	130 %
Prated	12.00 kW	11.00 kW
SCOP	4.43	3.35
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	10.30 kW	9.80 kW
COP Tj = -7°C	2.68	1.87
Pdh Tj = +2°C	6.30 kW	6.00 kW
COP Tj = +2°C	4.30	3.55
Pdh Tj = +7°C	4.00 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	10.30 kW	9.80 kW
COP Tj = Tbiv	2.68	1.87
Pdh Tj = TOL	10.30 kW	8.20 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	5476 kWh	6872 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	11.20 kW	10.21 kW
El input	2.34 kW	3.31 kW
COP	4.80	3.09
Indoor water flow rate	1.92 m^3/h	1.10 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-P1105H8R-E/HWS-P1105XWHT6-E

General Data	
Power supply	1x230V 50Hz

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	173 %	130 %
Prated	12.00 kW	11.00 kW
SCOP	4.43	3.35
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	10.30 kW	9.80 kW
COP Tj = -7°C	2.68	1.87
Pdh Tj = +2°C	6.30 kW	6.00 kW
COP Tj = +2°C	4.30	3.55
Pdh Tj = +7°C	4.00 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	10.30 kW	9.80 kW
COP Tj = Tbiv	2.68	1.87
Pdh Tj = TOL	10.30 kW	8.20 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	5476 kWh	6872 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	11.20 kW	10.21 kW
El input	2.34 kW	3.31 kW
COP	4.80	3.09
Indoor water flow rate	1.92 m^3/h	1.10 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-P1105H8R-E/HWS-P1105XWHT9-E

General Data	
Power supply	1x230V 50Hz

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	173 %	130 %
Prated	12.00 kW	11.00 kW
SCOP	4.43	3.35
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	10.30 kW	9.80 kW
COP Tj = -7°C	2.68	1.87
Pdh Tj = +2°C	6.30 kW	6.00 kW
COP Tj = +2°C	4.30	3.55
Pdh Tj = +7°C	4.00 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	10.30 kW	9.80 kW
COP Tj = Tbiv	2.68	1.87
Pdh Tj = TOL	10.30 kW	8.20 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	5476 kWh	6872 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	11.20 kW	10.21 kW
El input	2.34 kW	3.31 kW
COP	4.80	3.09
Indoor water flow rate	1.92 m^3/h	1.10 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-P1405H8R-E/HWS-P1105XWHM3-E

General Data	
Power supply	1x230V 50Hz

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	173 %	130 %
Prated	14.00 kW	12.00 kW
SCOP	4.43	3.34
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	12.40 kW	10.80 kW
COP Tj = -7°C	2.68	1.85
Pdh Tj = +2°C	7.70 kW	7.30 kW
COP Tj = +2°C	4.30	3.55
Pdh Tj = +7°C	5.40 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	12.40 kW	10.80 kW
COP Tj = Tbiv	2.68	1.85
Pdh Tj = TOL	11.90 kW	9.30 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	14.00 kW	12.00 kW
Annual energy consumption Qhe	6588 kWh	7571 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	13.03 kW
El input	3.16 kW	4.22 kW
COP	4.44	3.09
Indoor water flow rate	2.40 m³/h	1.40 m³/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-P1405H8R-E/HWS-P1105XWHT6-E

General Data	
Power supply	1x230V 50Hz

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	173 %	130 %
Prated	14.00 kW	12.00 kW
SCOP	4.43	3.34
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	12.40 kW	10.80 kW
COP Tj = -7°C	2.68	1.85
Pdh Tj = +2°C	7.70 kW	7.30 kW
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Pdh Tj = +7°C	5.40 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	12.40 kW	10.80 kW
COP Tj = Tbiv	2.68	1.85
Pdh Tj = TOL	11.90 kW	9.30 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	14.00 kW	12.00 kW
Annual energy consumption Qhe	6588 kWh	7571 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	13.03 kW
El input	3.16 kW	4.22 kW
COP	4.44	3.09
Indoor water flow rate	2.40 m³/h	1.40 m³/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-P1405H8R-E/HWS-P1105XWHT9-E

General Data	
Power supply	1x230V 50Hz

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	173 %	130 %
Prated	14.00 kW	12.00 kW
SCOP	4.43	3.34
Tbiv	-7 °C	-7 °C
TOL	-9 °C	-9 °C
Pdh Tj = -7°C	12.40 kW	10.80 kW
COP Tj = -7°C	2.68	1.85
Pdh Tj = +2°C	7.70 kW	7.30 kW
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Pdh Tj = +7°C	5.40 kW	3.60 kW

COP Tj = +7°C	6.22	4.13
Pdh Tj = 12°C	4.50 kW	4.20 kW
COP Tj = 12°C	8.28	6.32
Pdh Tj = Tbiv	12.40 kW	10.80 kW
COP Tj = Tbiv	2.68	1.85
Pdh Tj = TOL	11.90 kW	9.30 kW
COP Tj = TOL	2.54	1.67
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	120 W	120 W
PSB	20 W	20 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	14.00 kW	12.00 kW
Annual energy consumption Qhe	6588 kWh	7571 kWh

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	13.03 kW
El input	3.16 kW	4.22 kW
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Indoor water flow rate	2.40 m³/h	1.40 m³/h

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