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Summary of	ESTIA HWS-1105H8/HWS-1405H8-E/HWS1605H8-E	Reg. No.	011-1W0344	
Certificate Holder	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			
Subtype title	ESTIA HWS-1105H8/HWS-1405H8-E/HWS1605H8-E			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	2.7 kg			
Certification Date	26.11.2019			



Model: HWS-1105H8-E/HWS-1405XWHM3-E

Configure model		
Model name	HWS-1105H8-E/HWS-1405XWHM3-E	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.19 kW	3.49 kW
СОР	4.80	2.88

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



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}	161 %	130 %
Prated	10.00 kW	9.00 kW
SCOP	4.12	3.34
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.60 kW	7.80 kW
COP Tj = -7°C	2.90	2.09
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.48	3.59
Pdh Tj = +7°C	3.40 kW	3.20 kW
COP Tj = +7°C	5.44	4.29
Pdh Tj = 12°C	2.80 kW	2.80 kW
COP Tj = 12°C	6.34	5.50
Pdh Tj = Tbiv	8.60 kW	7.80 kW





	<u> </u>	
COP Tj = Tbiv	2.90	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.60 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.09
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	4924 kWh	5486 kWh



Model: HWS-1105H8-E/HWS-1405XWHT6-E

Configure model		
Model name	HWS-1105H8-E/HWS-1405XWHT6-E	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.19 kW	3.49 kW
СОР	4.80	2.88

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



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}	161 %	130 %
Prated	10.00 kW	9.00 kW
SCOP	4.12	3.34
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7° C	8.60 kW	7.80 kW
COP Tj = -7°C	2.90	2.09
Pdh Tj = $+2$ °C	6.00 kW	4.70 kW
$COPTj = +2^{\circ}C$	4.48	3.59
Pdh Tj = $+7$ °C	3.40 kW	3.20 kW
$COP Tj = +7^{\circ}C$	5.44	4.29
Pdh Tj = 12°C	2.80 kW	2.80 kW
COP Tj = 12°C	6.34	5.50
Pdh Tj = Tbiv	8.60 kW	7.80 kW





COP Tj = Tbiv	2.90	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.60 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.09
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	4924 kWh	5486 kWh



Model: HWS-1105H8-E/HWS-1405XWHT9-E

Configure model		
Model name	HWS-1105H8-E/HWS-1405XWHT9-E	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

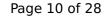
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.52 kW	10.05 kW
El input	2.19 kW	3.49 kW
СОР	4.80	2.88

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



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}	161 %	130 %
Prated	10.00 kW	9.00 kW
SCOP	4.12	3.34
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.60 kW	7.80 kW
COP Tj = -7°C	2.90	2.09
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.48	3.59
Pdh Tj = +7°C	3.40 kW	3.20 kW
COP Tj = +7°C	5.44	4.29
Pdh Tj = 12°C	2.80 kW	2.80 kW
COP Tj = 12°C	6.34	5.50
Pdh Tj = Tbiv	8.60 kW	7.80 kW





	<u> </u>	
COP Tj = Tbiv	2.90	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.60 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.09
Rated airflow rate	5310 m³/h	5310 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	4924 kWh	5486 kWh



Model: HWS-1405H8-E/HWS-1405XWHM3-E

Configure model		
Model name	HWS-1405H8-E/HWS-1405XWHM3-E	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.15 kW	12.03 kW	
El input	2.96 kW	4.29 kW	
СОР	4.44	2.81	

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





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}	157 %	129 %
Prated	10.00 kW	9.00 kW
SCOP	4.02	3.31
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.80 kW	8.20 kW
COP Tj = -7°C	2.76	1.96
Pdh Tj = +2°C	6.00 kW	5.10 kW
COP Tj = +2°C	4.34	3.56
Pdh Tj = +7°C	3.50 kW	3.20 kW
COP Tj = +7°C	5.35	4.38
Pdh Tj = 12°C	2.80 kW	2.70 kW
COP Tj = 12°C	6.35	5.56
Pdh Tj = Tbiv	8.80 kW	8.20 kW





	<u> </u>	
COP Tj = Tbiv	2.76	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.80 kW	8.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.96
Rated airflow rate	5590 m³/h	5590 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5156 kWh	5772 kWh



Model: HWS-1405H8-E/HWS-1405XWHT6-E

Configure model		
Model name	HWS-1405H8-E/HWS-1405XWHT6-E	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.15 kW	12.03 kW	
El input	2.96 kW	4.29 kW	
СОР	4.44	2.81	

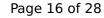
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





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}	157 %	129 %
Prated	10.00 kW	9.00 kW
SCOP	4.02	3.31
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.80 kW	8.20 kW
$COPTj = -7^{\circ}C$	2.76	1.96
Pdh Tj = +2°C	6.00 kW	5.10 kW
$COP Tj = +2^{\circ}C$	4.34	3.56
Pdh Tj = $+7^{\circ}$ C	3.50 kW	3.20 kW
$COPTj = +7^{\circ}C$	5.35	4.38
Pdh Tj = 12°C	2.80 kW	2.70 kW
COP Tj = 12°C	6.35	5.56
Pdh Tj = Tbiv	8.80 kW	8.20 kW





	<u> </u>	
COP Tj = Tbiv	2.76	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.80 kW	8.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.96
Rated airflow rate	5590 m³/h	5590 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5156 kWh	5772 kWh



Model: HWS-1405H8-E/HWS-1405XWHT9-E

Configure model			
Model name HWS-1405H8-E/HWS-1405XWHT9-E			
Application Heating (medium temp)			
Units Indoor + Outdoor			
Climate Zone n/a			
Reversibility Yes			
Cooling mode application (optional)	n/a		

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	13.15 kW	12.03 kW	
El input	2.96 kW	4.29 kW	
СОР	4.44	2.81	

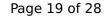
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





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}	157 %	129 %
Prated	10.00 kW	9.00 kW
SCOP	4.02	3.31
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	8.80 kW	8.20 kW
COP Tj = -7°C	2.76	1.96
Pdh Tj = +2°C	6.00 kW	5.10 kW
COP Tj = +2°C	4.34	3.56
Pdh Tj = +7°C	3.50 kW	3.20 kW
COP Tj = +7°C	5.35	4.38
Pdh Tj = 12°C	2.80 kW	2.70 kW
COP Tj = 12°C	6.35	5.56
Pdh Tj = Tbiv	8.80 kW	8.20 kW





	<u> </u>	
COP Tj = Tbiv	2.76	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.80 kW	8.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.96
Rated airflow rate	5590 m³/h	5590 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.00 kW
Annual energy consumption Qhe	5156 kWh	5772 kWh

Model: HWS-1605H8-E/HWS-1405XWHM3-E

Configure model			
Model name HWS-1605H8-E/HWS-1405XWHM3-E			
Application Heating (medium temp)			
Units Indoor + Outdoor			
Climate Zone n/a			
Reversibility	Yes		
Cooling mode application (optional)	n/a		

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	14.91 kW	13.40 kW	
El input	3.47 kW	4.95 kW	
СОР	4.30	2.70	

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





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	159 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.07	3.33
Tbiv	-7 °C	-7 °C
TOL	-7 °C	-7 °C
Pdh Tj = -7°C	9.00 kW	8.70 kW
COP Tj = -7°C	2.65	2.01
Pdh Tj = +2°C	6.00 kW	5.50 kW
COP Tj = +2°C	4.26	3.54
Pdh Tj = +7°C	3.70 kW	3.30 kW
COP Tj = +7°C	5.95	4.38
Pdh Tj = 12°C	2.80 kW	2.80 kW
COP Tj = 12°C	6.07	5.67
Pdh Tj = Tbiv	9.00 kW	8.70 kW





COP Tj = Tbiv	2.65	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	2.01
Rated airflow rate	5860 m³/h	5860 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	10.00 kW
Annual energy consumption Qhe	5212 kWh	6154 kWh



Model: HWS-1605H8-E/HWS-1405XWHT6-E

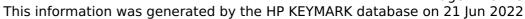
Configure model		
Model name HWS-1605H8-E/HWS-1405XWHT6-E		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	14.91 kW	13.40 kW
El input	3.47 kW	4.95 kW
СОР	4.30	2.70

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





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	159 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.07	3.33
Tbiv	-7 °C	-7 °C
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Pdh Tj = -7°C	9.00 kW	8.70 kW
COP Tj = -7°C	2.65	2.01
Pdh Tj = +2°C	6.00 kW	5.50 kW
COP Tj = +2°C	4.26	3.54
Pdh Tj = +7°C	3.70 kW	3.30 kW
COP Tj = +7°C	5.95	4.38
Pdh Tj = 12°C	2.80 kW	2.80 kW
COP Tj = 12°C	6.07	5.67
Pdh Tj = Tbiv	9.00 kW	8.70 kW





COP Tj = Tbiv	2.65	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	2.01
Rated airflow rate	5860 m³/h	5860 m³/h
WTOL	55 °C	55 °C
Poff	17 W	17 W
РТО	120 W	120 W
PSB	17 W	17 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	10.00 kW
Annual energy consumption Qhe	5212 kWh	6154 kWh

Model: HWS-1605H8-E/HWS-1405XWHT9-E

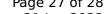
Configure model		
Model name HWS-1605H8-E/HWS-1405XWHT9-E		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	14.91 kW	13.40 kW
El input	3.47 kW	4.95 kW
СОР	4.30	2.70

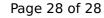
EN 14511-4			
Shutting off the heat transfer medium flow	passed		
Complete power supply failure	passed		
Defrost test	passed		
Starting and operating test	passed		





EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	43 dB(A)	43 dB(A)		
Sound power level outdoor	69 dB(A)	69 dB(A)		

EN 14825				
	Low temperature	Medium temperature		
η_{s}	159 %	130 %		
Prated	10.00 kW	10.00 kW		
SCOP	4.07	3.33		
Tbiv	-7 °C	-7 °C		
TOL	-7 °C	-7 °C		
Pdh Tj = -7°C	9.00 kW	8.70 kW		
COP Tj = -7°C	2.65	2.01		
Pdh Tj = +2°C	6.00 kW	5.50 kW		
COP Tj = +2°C	4.26	3.54		
Pdh Tj = +7°C	3.70 kW	3.30 kW		
COP Tj = +7°C	5.95	4.38		
Pdh Tj = 12°C	2.80 kW	2.80 kW		
COP Tj = 12°C	6.07	5.67		
Pdh Tj = Tbiv	9.00 kW	8.70 kW		





	•	-
COP Tj = Tbiv	2.65	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	2.01
Rated airflow rate	5860 m³/h	5860 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	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	10.00 kW
Annual energy consumption Qhe	5212 kWh	6154 kWh