

## New R32 Estia 1-Series Air to Water Heat Pump

**TOSHIBA** are pleased to confirm that the new R32 Estia Air-to-Water 1-Series single phase 4 kW to 11 kW heat pumps and new Wall Mounted Hydro Units will join the current Estia line-up.

### 1. Features

- **New chassis for Wall Mounted type Hydro Unit**
  - Compact and Light Weight chassis
  - Dimensions (HxWxD): 720 x 450 x 235mm, weight: 27kg
  - 56% less volume than previous model
  - 45% less weight than previous model



**R32 Estia 1-Series**



**R410A Estia 5-Series**



Hydro Unit  
(Wall Mounted type)



Outdoor Unit  
(1-ph 8kW & 11kW)



Outdoor Unit  
(1-ph 4kW & 6kW)





- Easy installation (new design for easy wiring and a reduction in the number of screws)
- Easy maintenance (easy access to main parts)
- Optimise flow rate control with flow sensor and variable flow pump
- Visual water flow rate l/s on controller display
- **Wide line-up with R32 refrigerant using a 1 fan chassis**
  - 4.0kW and 6.0kW models are added as a newly extended line-up
  - 11.0kW model is now available with a single fan chassis
  - These Outdoor Units are also connectable with the All in One Hydro Unit (HWT-\*\*1F21\*\*\*W-E)

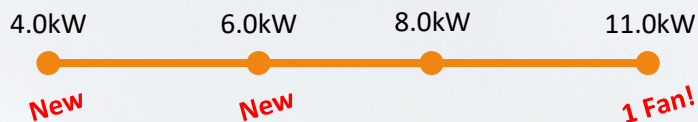


**Better Air Solutions**

## 11kW Comparison

Version	New	Previous
Model	HWT-1101HW-E	HWS-1105H-E
Height	1,050 mm	1,340 mm
Width	1,010 mm	900 mm
Depth	370 mm	320 mm
Weight	75kg	92 kg
Appearance		

**ESTiA**  
R32 Estia 1-Series



**ESTIA**  
R410A Estia 5-Series

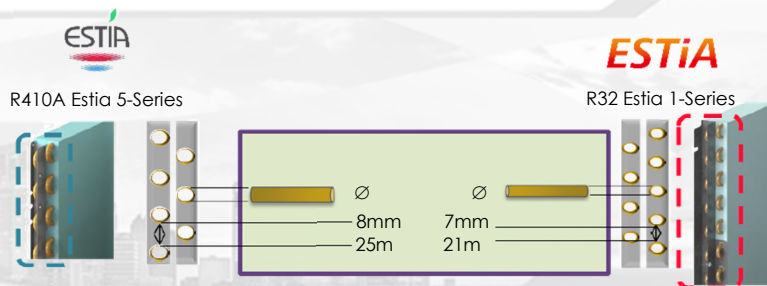


- Achieve highest Energy Label rating A+++ for all models (Climate: Average, Low Temperature)

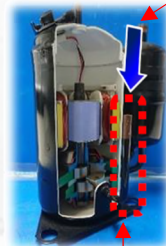
A +7/ W 35	4.0 kW	6.0 kW	8.0 kW	11.0 kW
Heating Capacity (Rated)	4.0	6.0	8.0	11.0
COP	5.20	4.80	5.19	4.60
Seasonal Energy Consumption	178	180	182	179
Energy Label	A+++			
SCOP	4.53	4.58	4.63	4.55



- LWT of 62°C with an OAT of -25°C available (for 8kW and 11kW models)
  - New twin rotary compressor with liquid injection
  - Increase the number of paths for the Estia Outdoor Unit



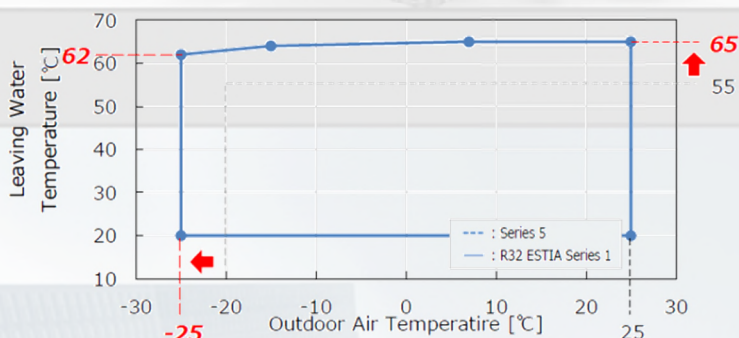
Liquid refrigerant flow to compressor to cool down discharged high temperature refrigerant



**Liquid injection**

- This image is an example of twin rotary with injection compressor

<Operable Range for 8kW & 11kW>



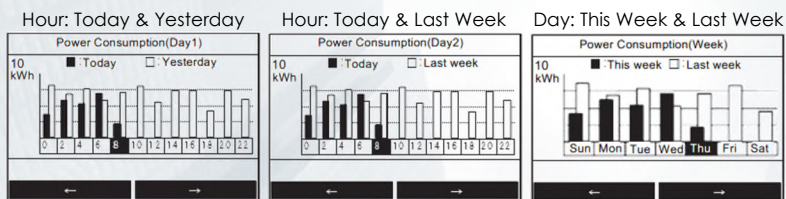
- Max. LWT extended to 65°C from 60°C for Series 5 Standard
- Min. OAT extended to -25°C from -20°C for Series 5 Standard
- Max. LWT 65 °C in case of OAT +7°C111
- Max. LWT 62 °C in case of OAT -25°C171



## Remote Controller with Expanded Function

- hourly/daily power consumption trend data analysis

- Detail operation data and sensor data display



Hydro Unit		Outdoor Unit	
Sensor information(1/2)		Sensor information(2/2)	
TC 30°C	LPS 1.2MPa	TO 16°C	CMP 90Hz
TWI 30°C	TTW 45°C	TD 80°C	FAN1 600rpm
TWO 35°C	TFI 30°C	TE 12°C	FAN2 600rpm
THO 35°C	RT 20°C	TS 15°C	PMV 250pls
WF 23.0 L/min	MIX 10step	CT 15.0A	HPS 4.0MPa
RETURN		RETURN	

-16 languages are available (\* New)

English, Turkey, French, German, Spanish, Italian, Dutch, Finnish, Czech, Hungarian, Croatian, Slovenian, Portuguese(\*), Polish(\*), Danish(\*), Swedish(\*)

## Various Control Solutions are Available

One of following devices can be connected on remote controller communication line A+B



- Current Open Protocol Interfaces (BMS-IFMB/KXOAWR-E) cannot be connected with the new 1-Series R32 Estia model range. New Models are planned to be released in the future
- Details of the WIFI Interface will be released later

## 2. Models

Outdoor Model	Type	Rated Capacity (kW)		Power Supply V/ph/Hz	Start Shipping	Factory
HWT-401HW-E	Standard	Heating	Cooling	220-240/1/50	March 2021	TCAE Poland
HWT-601HW-E		4.0	4.0			
HWT-801HW-E		6.0	5.0			
HWT-1101HW-E		8.0	6.0			
HWT-801HRW-E	Standard (inc. tape heater)	11.0	8.0			
HWT-1101HRW-E		8.0	6.0			

Hydro Model	Capacity (kW) Back-up Heater	Connectable CDU	Start Shipping	Factory
HWT-601XWHM3W-E	3.0	HWT-401/601HW-E	March 2021	TCAE Poland
HWT-601XWHT6W-E	6.0			
FIWT-1101XWHM3W-E	3.0	HWT-801/1101H(R)W-E		
HWT-1101XWHT6W-E	6.0			
HWT-1101XWHT9W-E	9.0			
HWT-601XWHT6W-TR	6.0			

Accessory	Description	Start Shipping	Factory
HWS-AMSU51-E	2nd Remote Controller	March 2021	TCAE Poland
HWS-IFAIP01U-E	ESTIA 0-10V Interface		TCC Japan
HWS-IWF0010UP-E	Wireless Interface	September 2021	TCTC Thailand

## 3. Combinations

Wall Mounted Indoor	HWT-401HW-E	HWT-601HW-E	HWT-801H(R)W-E	HWT-1101H(R)W-E
Hydro Model				
HWT-601XWH**W-E	✓	✓	-	-
HWT-1101XWH**W-E	-	-	✓	✓

## 4. Production

March 2021 subject to standard shipping lead times (except wireless controller)

HWS-IWF0010UP-E September 2021 subject to standard shipping lead times

For further information please contact our customer support team on **0870 843 0333**, your local representative, your supplier of **TOSHIBA** products or email any enquiries to: - [general.enquiries@toshiba-ac.com](mailto:general.enquiries@toshiba-ac.com)





## Performance Data

### Outdoor unit HWT-

Hydro unit combination				Air T°	Water T°	HWT	601XWH**W-E	601XWH**W-E	1101XWH**W-E	1101XWH**W-E
Under floor heating	Max heating capacity	+7°C	35°C	kW	H	7.25	7.25	11.90	13.24	
	Nominal heating capacity	+7°C	35°C	kW	H	4.00	6.00	8.00	11.00	
	COP	+7°C	35°C	W/W	H	5.20	4.80	5.19	4.60	
	Energy Efficiency Class - Average Climate - Low LWT		35°C		H	A+++	A+++	A+++	A+++	
	ETAs h (ηs) - Average Climate - Low LWT		35°C	%	H	178	180	182	179	
	SCOP- Average Climate - Low LWT		35°C		H	4.53	4.58	4.63	4.55	
	Max heating capacity	-7°C	35°C	kW	H	4.80	6.06	8.11	9.10	
	Heating capacity¹	-7°C	35°C	kW	H	4.25	5.26	7.21	7.95	
	COP	-7°C	35°C	W/W	H	3.06	2.97	2.70	2.54	
	Max heating capacity	-10°C	35°C	kW	H	4.40	5.57	7.49	8.45	
Radiators heating & DHW	Max heating capacity	-15°C	35°C	kW	H	3.73	4.75	6.46	7.37	
	Heating capacity¹	-15°C	35°C	kW	H	3.43	4.39	5.96	6.77	
	COP	-15°C	35°C	W/W	H	2.54	2.57	2.40	2.27	
	Energy Efficiency Class - Average Climate - Medium LWT		55°C		H	A++	A++	A++	A++	
	ETAs h (ηs) - Average Climate - Medium LWT		55°C	%	H	135	132	142	142	
	SCOP - Average Climate - Medium LWT		55°C		H	3.45	3.37	3.63	3.62	
	Max heating capacity	+7°C	45°C	kW	H	6.97	6.82	11.75	12.41	
	Max heating capacity	-7°C	45°C	kW	H	4.48	5.80	8.00	8.44	
	Max heating capacity	-15°C	45°C	kW	H	3.37	4.03	6.54	7.52	
	Max heating capacity	+7°C	55°C	kW	H	6.51	7.53	9.96	10.17	
Cooling	Max heating capacity	-7°C	55°C	kW	H	4.31	5.42	7.35	7.72	
	Max heating capacity	-10°C	55°C	kW	H	-	-	7.00	7.38	
	Max heating capacity	-15°C	55°C	kW	H	-	-	6.41	6.81	
	Nominal cooling capacity	35°C	7°C	kW	C	4.00	5.00	6.00	8.00	
	EER	35°C	7°C	W/W	C	3.45	3.30	3.20	2.80	
	Nominal cooling capacity	35°C	18°C	kW	C	5.30	6.30	7.60	10.20	
	EER	35°C	18°C	W/W	C	4.65	4.13	3.93	3.39	

Max heating capacities are shown at peak value during operation, at max compressor operating range in accordance with EN14511

Nominal heating and cooling capacity are given at water delta T° 5°C and rated compressor operating frequency in accordance with EN14511

<sup>1</sup>Heating capacity are shown at max compressor operating frequency in accordance with EN14511

Energy Efficiencies Class and Seasonal space heating energy efficiency (ηs) are provided for Average Climate conditions in accordance with EN14825

## Specification – Outdoor Heat Pump

Specification – Outdoor Heat Pump							
Outdoor Unit	HWT-	401HW-E	601HW-E	801HW-E	1101HW-E	801HRW-E	1101HRW-E
Dimensions (HxWxD)	mm	630x800x300		1050x1010x370			
Weight	kg	42		75			
Sound power level (Max) H/C	d8(A)	65/62	65/62	65/63	65/63	65/63	65/63
Sound power level (Rated) H/C	d8(A)	59/60	62/61	63/62	64/62	63/62	64/62
Sound power level (Silent Mode) H/C	d8(A)	54/55	58/57	50/59	62/60	58/59	62/60
Sound pressure level (Rated) H/C at 1m <sup>1</sup>	d8(A)	45/46	46/46	51/50	51/51	51/50	51/51
Sound pressure level (Silent Mode) H/C @ 1m <sup>1</sup>	d8(A)	40/41	42/41	46/47	49/47	46/47	45/47
Sound pressure level (Rated) H/C @ 5m <sup>2</sup>	d8(A)	37/38	40/39	41/40	42/40	41/40	42/40
Sound pressure level (Silent Mode) H/C @ 5m <sup>2</sup>	d8(A)	32/33	36/35	36/37	40/38	36/37	46/30
Compressor type		DC Twin rotary		DC Ton rotans as/injection			
Refrigerant / Charge amount (kg)		R32 / 0.9		R32 / 1.25			
Flare connections (gas-liquid)		1/2 - 1/4		5/8 - 1/4			
Minimum pipe length	m	5		5			
Maximum pipe length	m	30		30			
Maximum height difference	m	30		30			
Chargeless pipe length	m	20		8			
Operating range in space heating*	°C	-20~25		-25~25			
Operating range Domestic hot water	°C	-20~43		-25~45			
Operating range in cooling	°C	10~43					
Bottom tape heater power	W	-	-	-	-	150	
Power supply	V-ph-Hz	220-240-1-50					

<sup>1</sup>Noise pressure levels EN 12102 at 1m, open field directivity 2; <sup>2</sup>Noise pressure levels EN 12102 at 5m, open field directivity 2

\*Depending on the conditions only back-up heater operates

## Specification - Wall Mounted Indoor

Hydro Unit	HWT-		601XWHM3W-E	601XWHT6W-E	1101XWHM3W-E	1101XWHT6W-E	1101XWHT9W-E
To be used with Outdoor model			40, 60		80, 110		
Leaving water temp. (no electric heater)	°C	H	20~55°C		20~65°C		
Maximum leaving water temp. (with electric heater)	°C	H	55		65		
Leaving water temp. (cooling)	°C	C	7~25%				
Dimensions (HxWxD)	mm		720x450x235				
Weight Kg	kg		27				
Sound power level H/C	d8(A)		40/40				
Sound pressure level H/C	d8(A)		29/29				
Electric back up heater capacity	kW		3.0	6.0	3.0	6.0	9.0
Electric back up heater supply	V-ph-Hz		220-240-1-50	380-415-3N-50	220-240-1-50	380-415-3N-50	
Maximum current	A		13	13 x 2	13	13 x 2	13 x 3