

# New Estia air to water monobloc 17-21kW

**TOSHIBA** are pleased to announce the launch of the new air to water monobloc type 17 - 21kW to join the ESTIA range of heating products.

## 1. Line Up

Model Name	Rated Capacity (kW) (Cooling/Heating)	Hydronics	Open Network	Coil Protection ①	Retail List Price UK
RUA-CP1701H8-E	14.9/17.1	Variable speed pump with Expansion vessel	Modbus®	Without	£9,321
RUA-CP1701H8Z-E				With	£9,529
RUA-CP2101H8-E	18.6/21.1	Variable speed pump with Expansion vessel	Modbus®	Without	£10,559
RUA-CP2101H8Z-E				With	£10,764

① = Italcoat coil protection. Fins made of pre-treated aluminium (polyurethane & epoxy)



## 2. Accessories

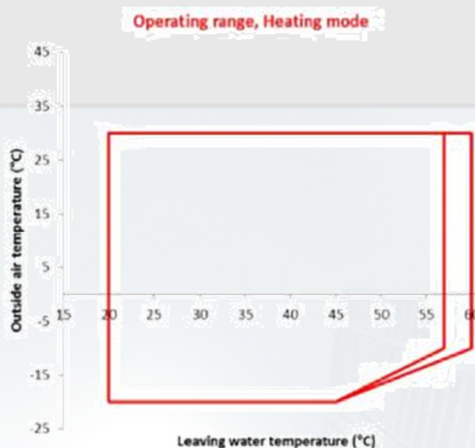
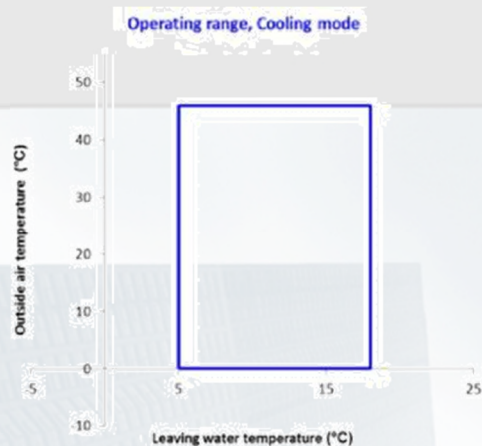
Model Name	Item	Description
RBP-AMT11E	Wired remote controller	Additional wired remote controller
RBP-RTMS1MNR-E	Header/Follower (up to 2 units) sensor	Enables header/follower operation for two units connected in parallel
RBP-RTDH1MNR-E	Domestic hot water sensor	Required for DHW production
RBP-RTAM1MNR-E	Additional outdoor ambient temperature sensor	Increases measurement accuracy of the outdoor air temperature

## 3. Product Name Convention

RUA-CP	Model	***.*	170	210
170	Capacity	###	Heating Capacity	
			170 - 17kW	210 - 21kW
1	Serial	#	Series	
H	Type	*	H	
			Heat pump	
			Blank	
	Hydronics		Variable speed pump with expansion vessel	
8	3 phase	8	3 Phase	
Z	Protection	*	Blank	Z
			None	Italcoat
E	Market	E	Europe	

## 4. Features

- Refrigerant piping is not required on site.
- High Performance and Large Operating Envelope.
  - ◆ Twin rotary compressor and control integration.
  - ◆ From -20°C to +30°C in heating mode and from 0°C to +45°C in cooling operation.
  - ◆ 60°C maximum leaving water temperature RUA-CP1701H8\*\*-E models.
  - ◆ 57°C maximum leaving water temperature RUA-CP2101H8\*\*-E models.



Twin Rotary Compressor

### ■ Wired remote controller

- ◆ Large user-friendly backlit screen.
- ◆ 3 access levels: end user, installer, and factory.
- ◆ Delivered with main unit in factory packing.



### ■ Hydronics

- ◆ Hydronic module with variable speed pump and expansion.
  - Variable speed modes: adjustable constant speed/constant  $\Delta T$ .
  - Variable speed: energy efficient.
  - Variable speed: available external static pressure up to 100kPa.

### ■ Advanced Control

- ◆ Optimised user interface, 3 comfort modes, domestic hot water production.
- ◆ External control options using no-volt digital inputs or Modbus connection.

## 5. Availability

Ex-works 3-4 weeks.

For further information please contact our customer support team on [0870 843 0333](tel: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)

## 7. Specification

Unit name	Monobloc unit	RUA-CP1701H	RUA-CP2101H
Power source		3 phase 50 Hz 400 V	400 / 3 + N / 50
Heating capacity *1	(kW)	17.1	21.1
Coefficient of performance *1	-	4.1	4.1
Cooling capacity *2	(kW)	14.9	18.6
Energy Efficiency Ratio *2	-	3.0	3.1
Variable range compressor frequency	Hz	15 – 100.2	30 – 96
Electric characteristic *1 *2	Voltage Range (V)	360 - 440	360 - 440
	Nominal unit current drawn (Un) *2	12.5	14.3
	Maximum unit power input (Un) **	10.8	12.4
	Cos Phi unit at maximum power **	0.93	0.93
	Max. unit current drawn (Un-10%)***	18.5	21.2
	Maximum unit current drawn (Un) ****	16.7	19.1
Operating noise	Sound power level [dB(A)] *3	71	74
	Sound pressure level at 10m [dB(A)] *4	40	43
Outer dimension	Height (mm)	1579	1579
	Width (mm)	1109 (1141 including disconnect switch)	
	Depth (mm)	584	584
Net weight *5	(kg)	190.9	199.4
Colour		Light grey (RAL 7035)	
Compressor	Type	Twin rotary type with DC-inverter variable speed control	
Fan motor	Qty	2	2
	Max. air capacity (m³/hr)	7200	8640
	Max rotational speed (rpm)	14	16
Remote controller (RC) *3	Height (mm)	87.6	87.6
	Width (mm)	90.1	90.1
	Depth (mm)	15.4	15.4
Heat exchanger	Type	Plate-type heat exchange	
	Water Volume (L)	1.52	1.9
	Max. water-side operating pressure without hydronic module (kPa)	1000	1000
Refrigerant	Refrigerant name	R410A	R410A
	Charge amount (kg)	8.0	8.0
	Min. Flowrate (L/s)	0.45	0.57
Monobloc with variable speed hydronic module	Max. Flowrate (L/s)	1.2	1.5
	Pump Motor input (W)	310	310
	Expansion Tank Volume (L)	8	8
	Min. Pump Suction Pressure (kPa)	40 (0.4 bar)	40 (0.4 bar)
Water piping (With Hydronic Module)	Max. Pump Suction Pressure (kPa)	300 (3 bar)	300 (3 bar)
	Inlet Pipe diameter (BSP GAS inch)	1 1/4	1 1/4
Water Pressure relief valve	Outlet Pipe diameter (BSP GAS inch)	1	1
	Operating pressure (Mpa)	0.3 (3 bar)	0.3 (3 bar)
Operating range	Cooling Mode Outdoor Temperature	0 ~ 46°C	0 ~ 46°C
	Heating Mode Outdoor Temperature	-20 ~ 30°C	-20 ~ 30°C
	Storage Temperature	-20 ~ 48°C	-20 ~ 48°C
	Protection level	IP44	IP44
Wiring connection	Power wiring	4 wires: including earth wire	
	RC wiring	4 wires (H07RN-F)	

\*1 Heating performance measurement conditions: outside air temperature 7 °C, water supply temperature 30 °C, outlet temperature 35 °C.

\*2 Cooling performance measurement conditions: outside air temperature 35 °C, water supply temperature 12 °C, outlet temperature 7 °C.

\*3 In dB ref=10-12 W, (A) weighting. Declared dual number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). Measured in accordance with ISO 9614-1 and certified by Eurovent.

\*4 Values are guidelines only. Refer to unit nameplate.

\*5 In dB ref 20 µPa, (A) weighting. Declared dual number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power level Lw(A).

\*6 The remote controller should be shipped with the Monobloc unit.

\*7 For operation at an outdoor ambient temperature below 0°C (cooling mode and heating mode), the water freeze protection should be available and / or the water loop can be protected against frost by the installer, using an anti-freeze solution.

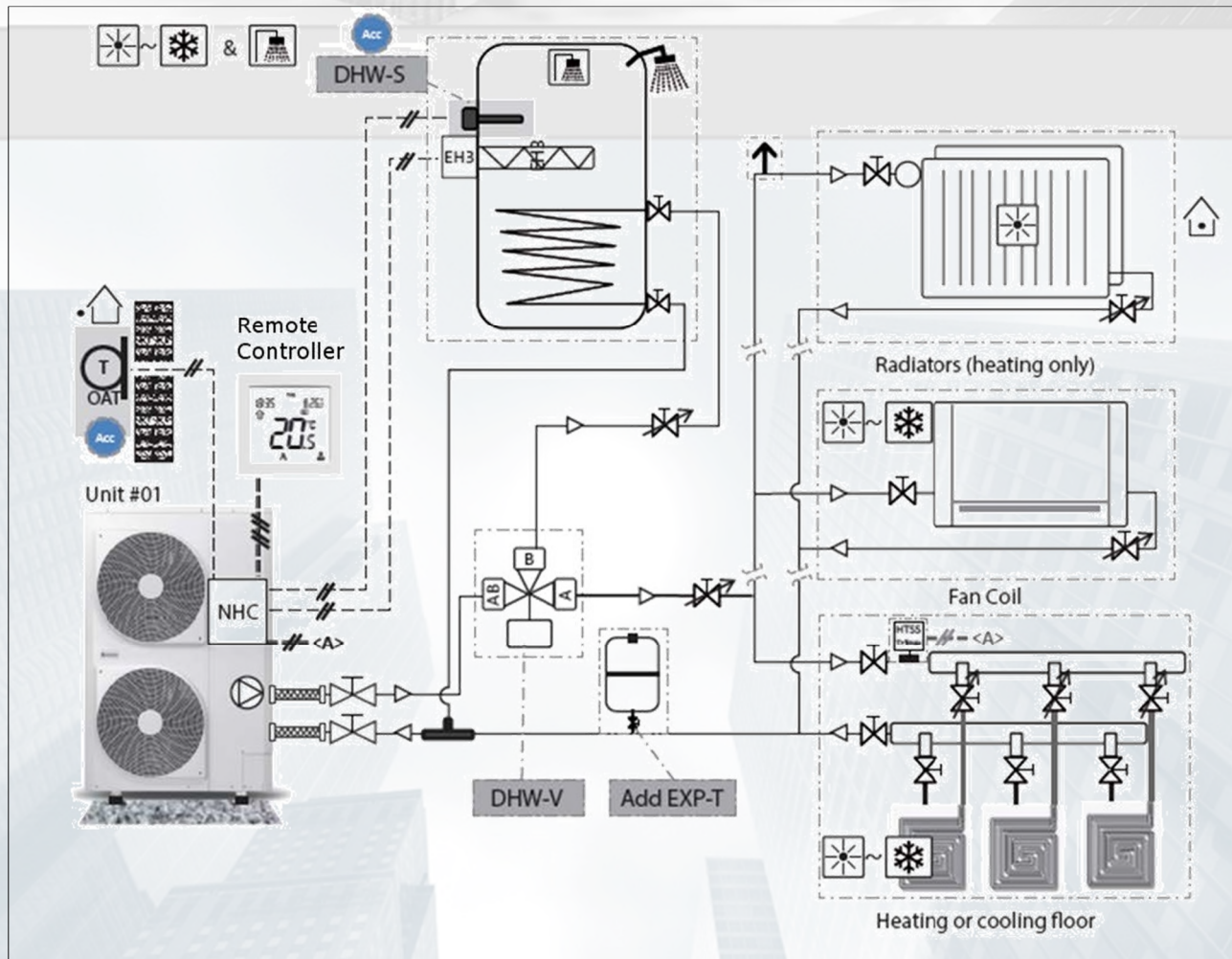
\*\* Power input, compressors and fans, at the unit operating limits (saturated suction temperature 15 °C, saturated condensing temperature 68.3°C) and nominal voltage of 400 V (data given on the unit nameplate).

\*\*\* Maximum unit operating current at maximum unit power input and at 360 V.

\*\*\*\* Maximum unit operating current at maximum unit power input and at 400 V (values given on the unit nameplate).

## 1. Typical application system diagram

Monoblock with Hydronic Module for Space Heating and DHW (Sensor and 3-Way-Valve), OAT & Safety Input (Underfloor temperature)



*Better Air Solutions*