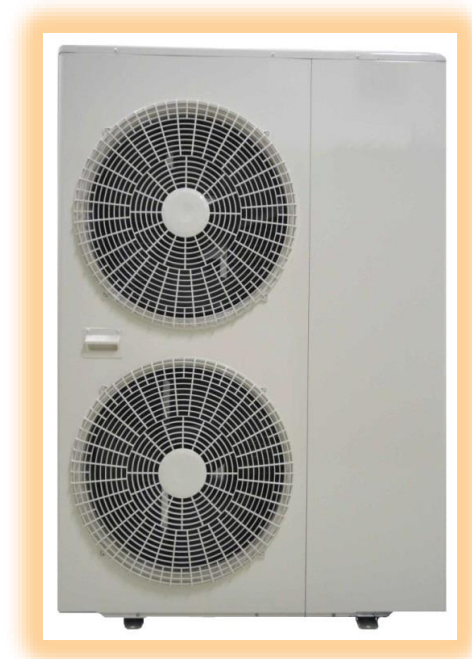


DC Inverter AIR to WATER Heat Pump Units

Product Overview



 **Made in Japan**



 **TOYO BOEKI CO., LTD.**

Product Features & Advantage

 Made in Japan

- ✓ **Monobloc System with compact design**
No refrigerant (gas) work is required and easy installation & maintenance.
- ✓ **High performance & efficiency (Top Class COP / SCOP)**
Adoption with DC Inverter control, DC twin rotary compressor and DC pump (comply with ErP).
COP : 4.35 (10kW), 4.11 (6kW), 4.10 (16kW) at A7W35 under EN14511
SCOP : over 4.2 (A ++ : W35 Average Climate for all models) under EN14825
- ✓ **Flexible system combination**
Available existing heat source combination system with Electric / Gas / Oil Boiler & DHW tank.
- ✓ **2 zone temperature control**
Available to control 2 different water temperature for combination equipments of FLOOR HEATING , RADIATOR and FAN COIL UNIT.
- ✓ **Working in very cold region**
Working properly even minus 20°C by adoption with Anti-freezing heater.
- ✓ **Eco-friendly R32 & R410A Refrigerant**



Product Range

 **Made in Japan**

■ R410A MODEL	6kW	10kW	12kW	16kW
SINGLE PHASE 1PH/230V/50HZ	●	●		●

■ R32 MODEL	6kW	10kW	12kW	16kW
SINGLE PHASE 1PH/230V/50HZ	▲	▲	●	▲
THREE PHASE 3PH/400V/50HZ				●

● Under commercial production

● Commercial Production will start from Apr–Jun/2018Y

▲ Under development









Adoption of R32 refrigerant will reduce GWP(Global Warming Potential) about 2/3 comparing to R410A as shown below.

We take care environment and will develop R32 full range rapidly.

REFRIGERANT	ODP (Ozon Depletion Potential)	GWP (Global Warming Potential)
R410A (R32: 50% + R125: 50%)	0	2088
R32 (R32: 100%)	0	675

Product Specifications

 **Made in Japan**

Appearances		 35°C A ⁺	 35°C A ⁺	 35°C A ⁺	 35°C A ⁺	
		 55°C A ⁺	 55°C A ⁺	 55°C A ⁺	 55°C A ⁺	
Model		TYAEC-1639U (1PH) TYAEC-1642XU3	TYAEC-1242XU	TYAEC-1039U	TYAEC-0639U	
Power Supply		1P 230V 50Hz 3P 380-415V 50Hz	1P 230V 50Hz	1P 230V 50Hz	1P 230V 50Hz	
Heating	SCOP (EN14825)	35°C (Floor Heating) 55°C (Radiator)	4.2 (A ++ : Average Climate) 3.2 (A ++ : Average Climate)	(A ++ : Average Climate) (A ++ : Average Climate)	4.4 (A ++ : Average Climate) 3.0 (A + : Average Climate)	4.4 (A ++ : Average Climate) 3.0 (A + : Average Climate)
	Capacity	16.0 kW	* 12.0 kW	10.0 kW	6.0 kW	
	Input Power	3.90 kW	* 2.79 kW	2.30 kW	1.46 kW	
	Current	17.0 A	-	10.2 A	6.4 A	
	COP A7W35 (EN14511)	4.10	* 4.30	4.35	4.11	
	Noise Level	50dB (A)	-	51dB (A)	48dB (A)	
Allowable External Temperature	-20 ~ 43°C	-20 ~ 43°C	-20 ~ 43°C	-20 ~ 43°C		
Cooling	Capacity	16.0 kW	* 12.0 kW	8.0kW	5.0kW	
	Input Power	4.10 kW	* 3.15 kW	2.32kW	1.28kW	
	Current	17.8A	-	10.1A	5.6A	
	EER A35W18 (EN14511)	3.90	* 3.80	3.45	3.91	
	Noise Level	50dB (A)	-	51dB (A)	47dB (A)	
	Allowable External Temperature	15 ~ 43°C	* 15~43°C	20 ~ 43°C	18 ~ 43°C	
Dimensions (H×W×D)		1,418×1,000 ×330	1,418×1,000 ×330	882 × 850 ×330	675 × 825 ×300	
Net Weight		119kg	* 110kg	74kg	52kg	

Remarks) Specifications are subject to change without prior notice.

Apperances : 16kW 1Ph (TYAEYC-1639U)
16kW 3Ph (TYAEYC-1642XU3)
12kW 3Ph (TYAEYC-1242XU)

 **Made in Japan**

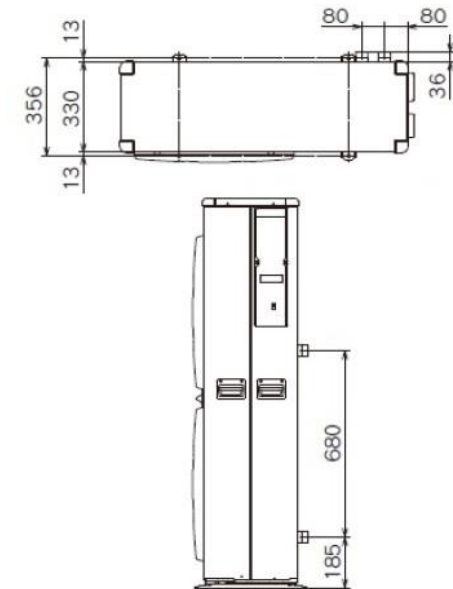
Front View



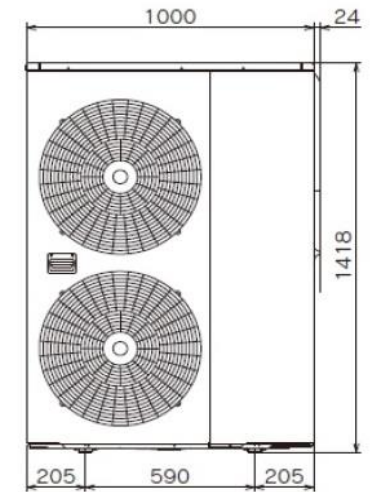
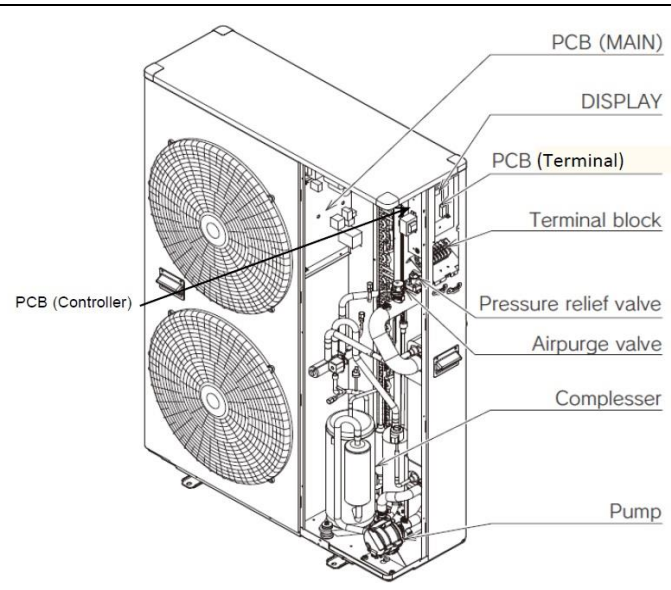
Rear View



Dimensions



Components



Apperances : 10kW model (TYAEYC-1039U)

● **Made in Japan**

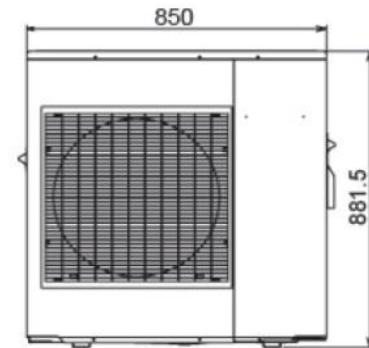
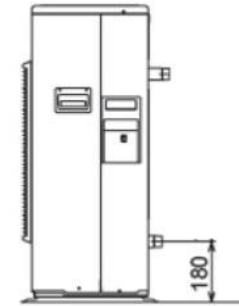
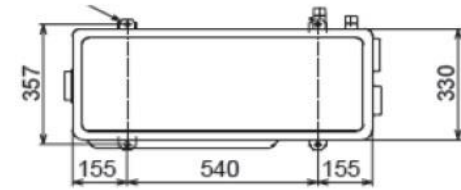
Front View



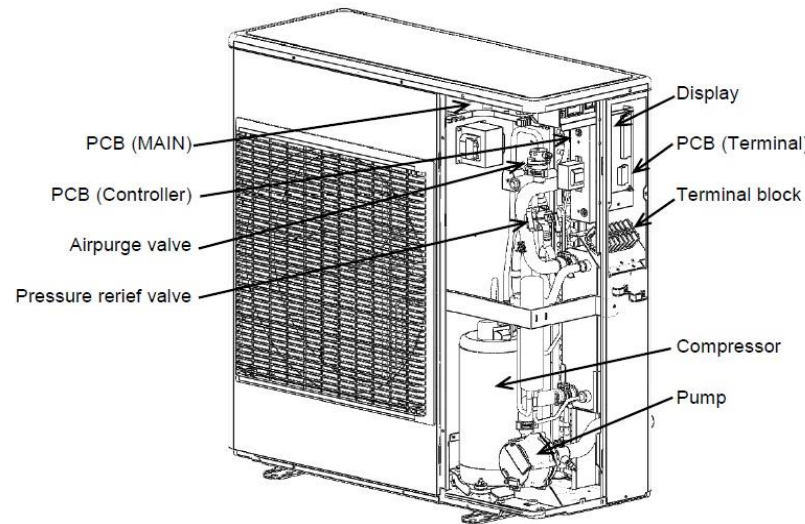
Rear View



Dimensions



Components



Apperances : 6kW model (TYAEYC-0639U)

 **Made in Japan**

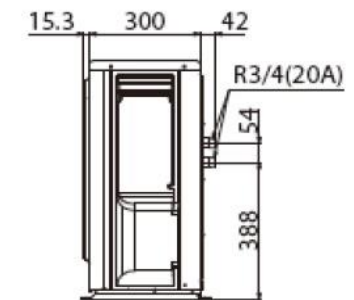
Front View



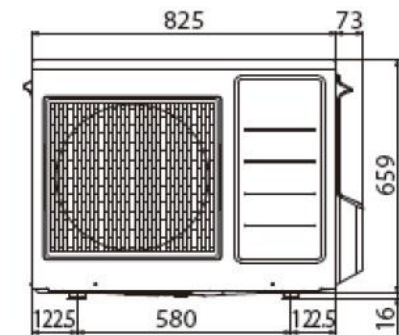
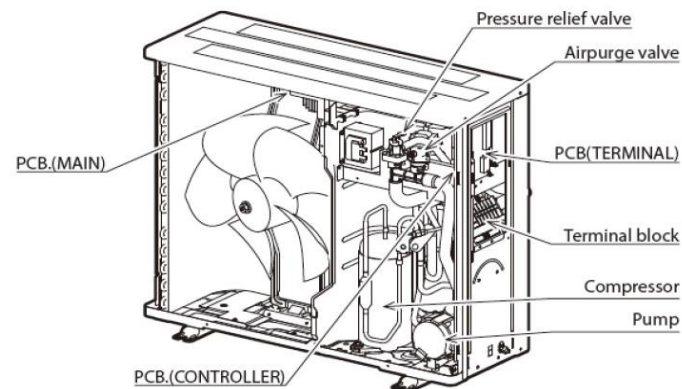
Rear View



Dimensions

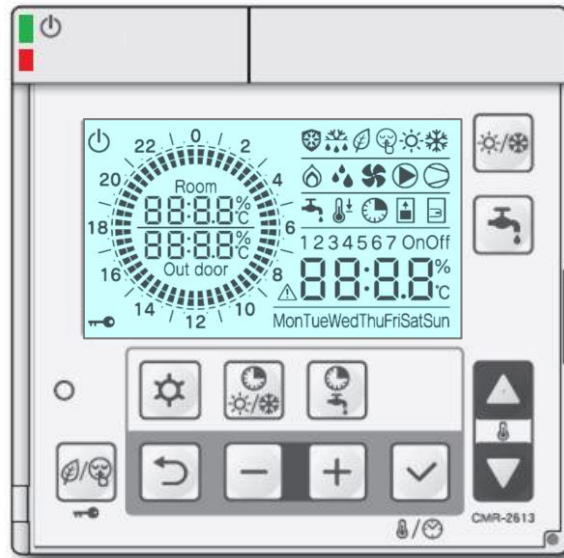


Components



Product Specifications

Remote controller



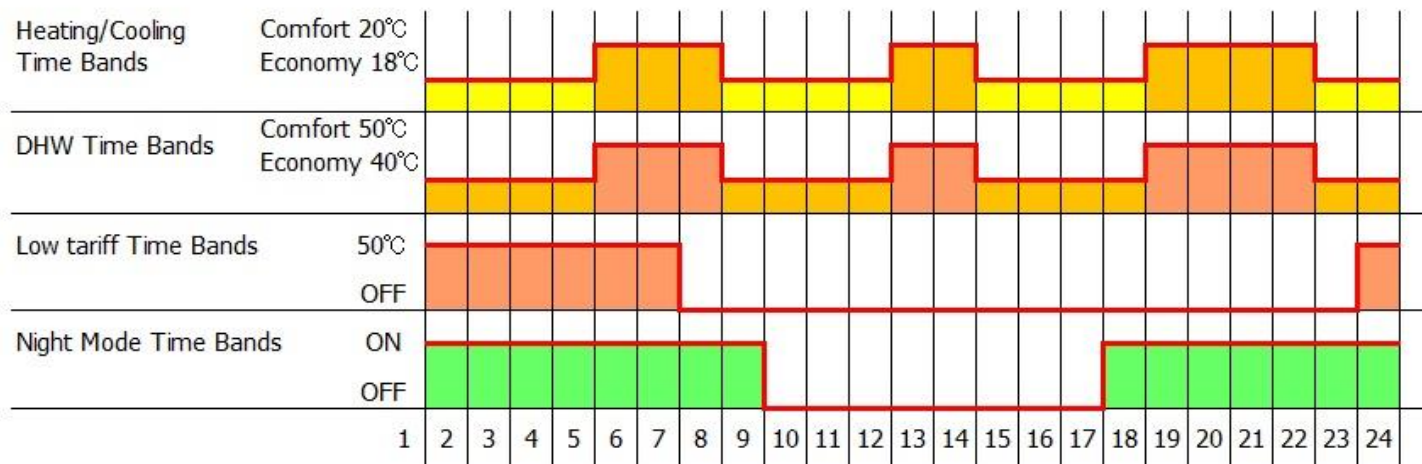
Bottom side
Room temperature sensor

- ✓ Easy setting for initial operation
- ✓ Easy-to-read Display
- ✓ Variety of function
 - Climatic Curve Setting (Heating & Cooling)
 - Low tariff mode
 - Night Mode (Low Noise Operation)
 - Weekly Timer Operation (Time bands control)



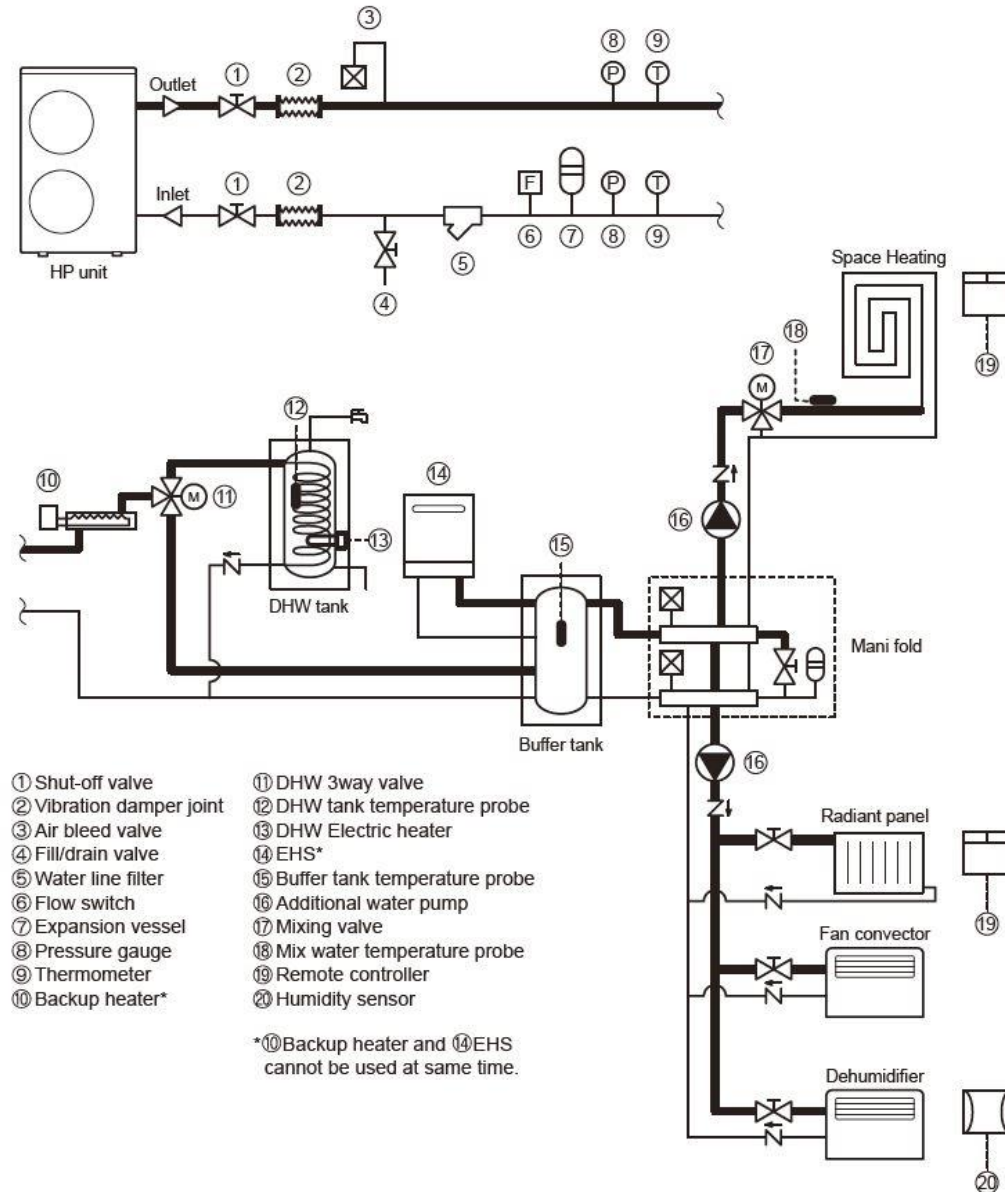
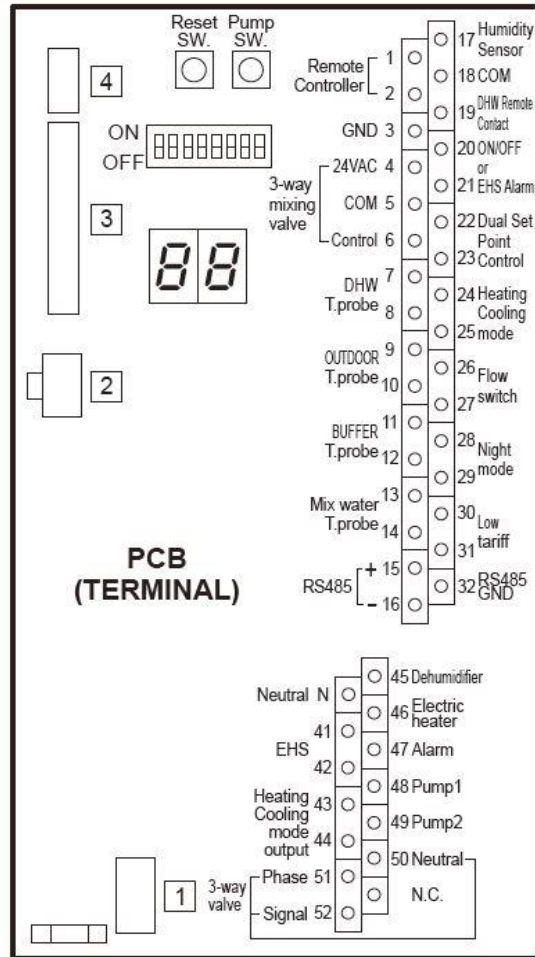
Example : ON
 ① 05:15~07:30
 ② 11:30~12:45
 ③ 18:30~23:00

- Legionella prevention
- Frost protection



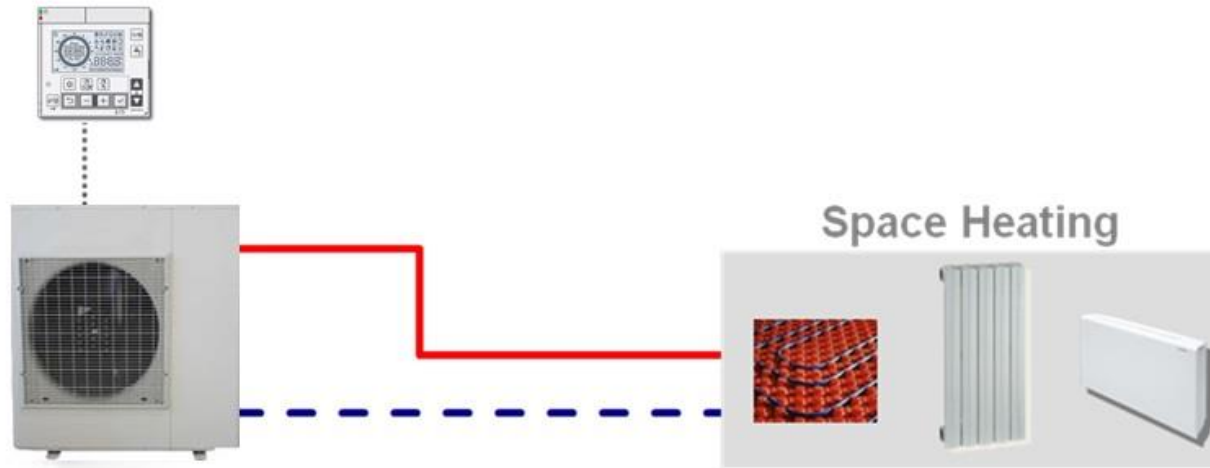
System integration

Our pre-installed logic of interface board (shown as below) will integrate all systems properly by various parameter setting in order to meet all requirements both new installation or replacement applications.

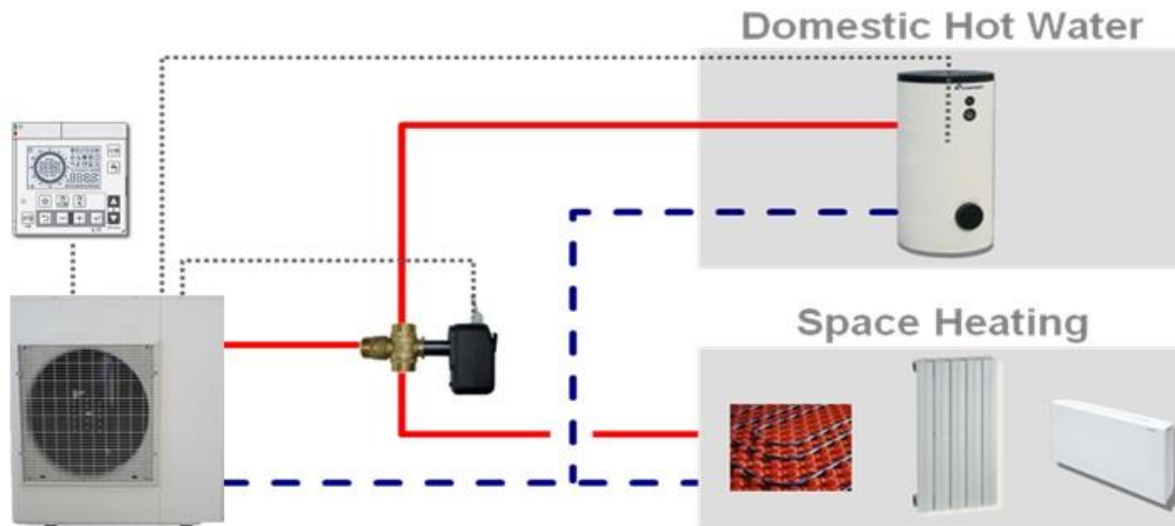


System example 1

- Single zone heating only

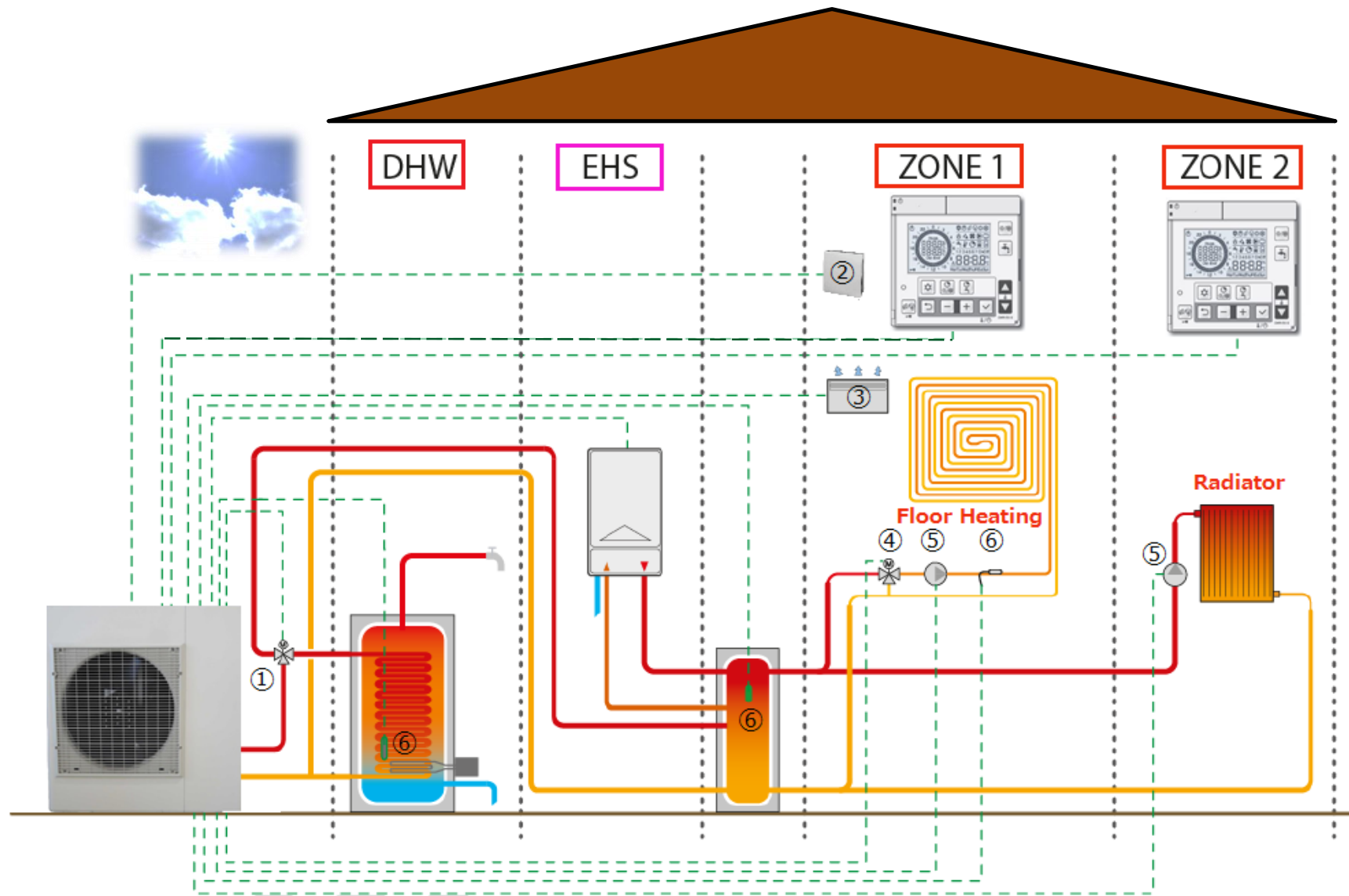


- Single zone heating + DHW



System example 2

Two (2) Zone Heating + DHW + External Heating Source



- ① 3 way valve
- ② Humidity sensor
- ③ Humidifier
- ④ Mixing valve
- ⑤ Water pump
- ⑥ Water temp. probe