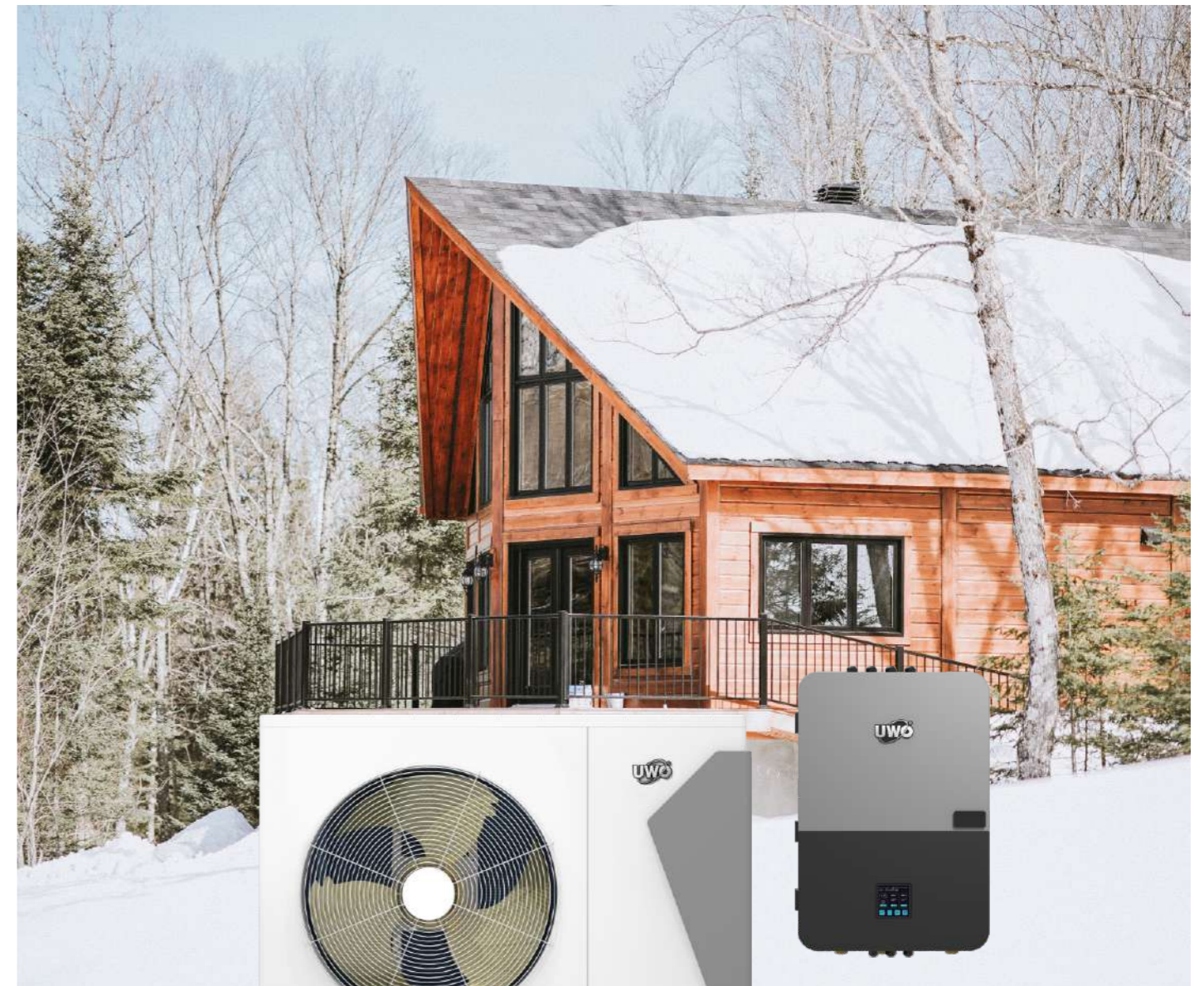




# VariWarm Guard

## R290 Air to Water Heat Pump



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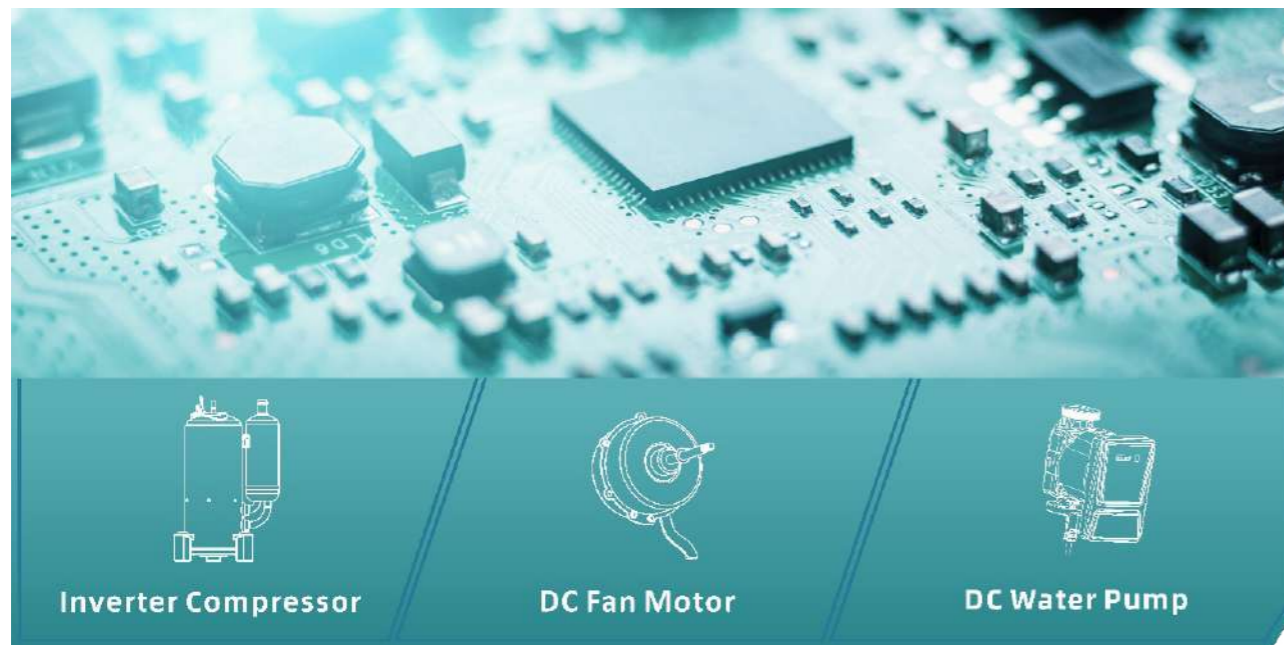
## R290 Refrigerant Solution

VariWarm Guard uses R290, a new type of environmentally friendly refrigerant. As one among the refrigerants with the least environmental impact, it only has 0 ODP and 3 GWP. Additionally, it benefits from having a high thermal conductivity and a sizable cooling capacity per unit volume to guarantee good operating efficiency.



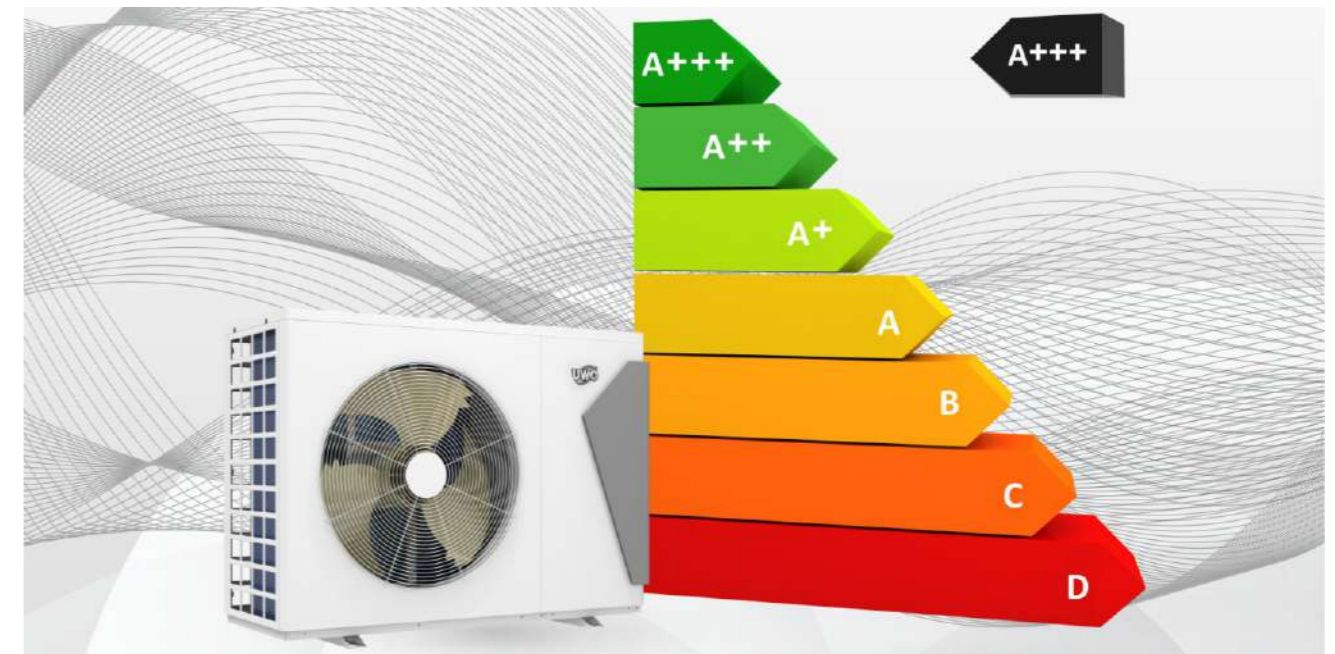
## Full Inverter Technology

The Inverter Compressor, DC Fan Motor, and DC Water Pump are the three main parts of the heat pump that uses full inverter technology. This technology automatically adjusts the speed at which these three major components run, making the device more energy-efficient and silent while yet maintaining stability. The soft start made possible by inverter technology simultaneously increases the lifespan of the unit and considerably decreases the impact on the power grid and pipeline during startup.



## ErP Energy Class A+++

Featuring with extraordinary-performance compressor and scientifically matching the high-quality components, the unit runs steadily and silently through reasonable and unique logic control. The energy efficiency of VariWarm Guard reaches the best level A+++ , which significantly reduce the operation costs.



## Two Zones Control

The heat pump uses a double zone control system to effectively offer a comfortable heating and cooling experience. This system can precisely manage the water temperature for various terminals according to distinct usage scenarios, decreasing temperature fluctuation and enhancing energy efficiency.



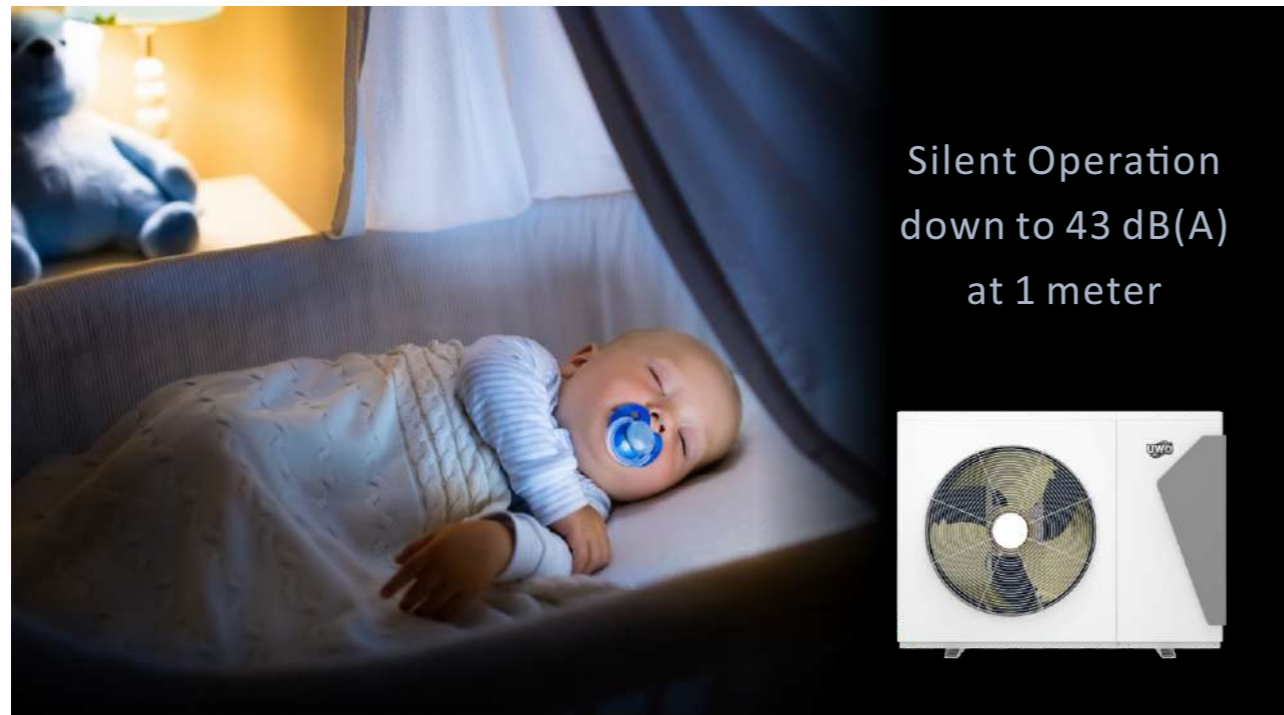
## Cold Weather Operation

VariWarm Guard is specifically made for heating in cold weather. The unit can function with high effectiveness at air temperature as low as  $-25^{\circ}\text{C}$  by fully using a high-performance compressor and R290 refrigerant, as well as the newest heat pump technology, including intelligent defrosting and advanced gas flow management.



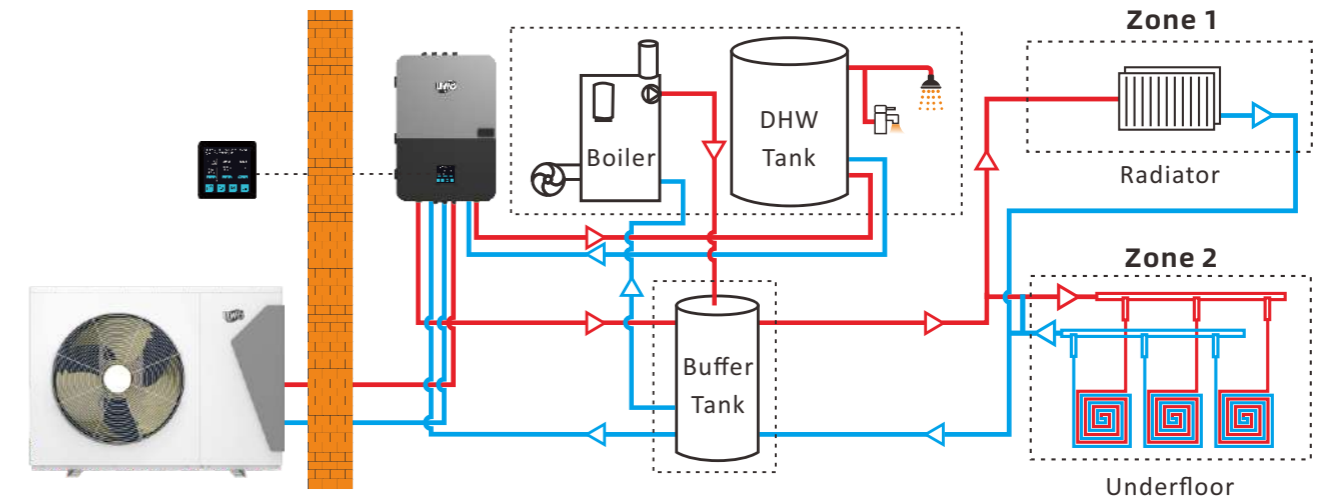
## Ultra Silent Running

The operation noise level of the unit has been reduced using unique noise reduction technique. It can be as low as 43~48dB(A) at 1 meter, which is equivalent to the level of typical residential appliances, such as refrigerators, without bothering the daily life of people.



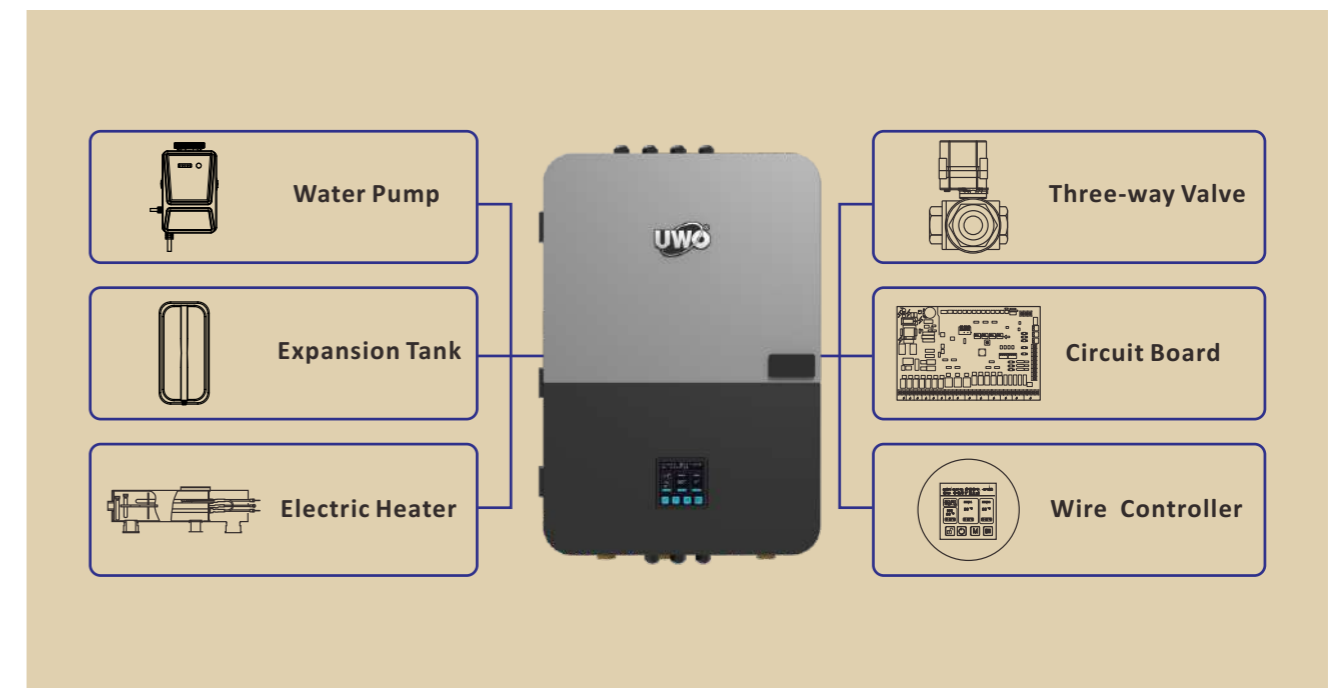
## Easy Installation

VariWarm Guard is equipped with a hydraulic module, making the installation easier and more convenient by reducing installation procedures for the water system. The hydraulic module can distribute water according to the heat demand of different terminals through precise temperature monitoring and logic control to finally meet the heating/cooling and DHW requirements.



## Hydraulic Module Solution

The hydraulic module is an integrated system of multiple important components, including the water pump, expansion tank, electric heater, three-way valve, circuit board and wire controller etc. With the synergy of these components, the unit can work intelligently, efficiently and safely to ensure a comfortable heating/cooling experience for the user.



## Colorful Touch Screen

The wired controller with colorful display is adopted for the heat pump. This controller is designed with user-friendly interface for conveniently manage the unit, realizing multiple control functions.



## Smart App Control

VariWarm Guard is with Wi-Fi function, so that your smartphone can remotely connect to the unit, enabling you to check the status and control the heat pump from anywhere at any time.



## Parameters

Factory Model No.	UHC	80R2V-H	120R2V-H	200R2V-H	120R2TV-H	200R2TV-H
Power Supply	/	220-240V~/50Hz			380-415V/3N~/50Hz	
Refrigerant	/	R290				
<b>&lt;Space Heating&gt; Ambient Temperature (DB/WB): 7°C/6°C, Water Temperature (Inlet/Outlet): 30°C/35°C</b>						
Max. Heating Capacity	kW	8.17	12.45	20.15	12.48	20.20
Max. Heating Power Input	kW	1.81	2.71	4.59	2.73	4.58
Max. Heating Current Input	A	7.9	11.7	19.9	4.1	6.9
<b>&lt;Hot Water&gt; Ambient Temperature (DB/WB): 20°C/15°C, Water Temperature Circulating from 15°C to 55°C</b>						
Max. Heating Capacity	kW	9.02	13.17	22.10	13.15	22.11
Max. Heating Power Input	kW	1.89	2.78	4.80	2.77	4.79
Max. Heating Current Input	A	8.2	12.0	20.8	4.2	7.2
<b>&lt;Space Cooling&gt; Ambient Temperature (DB/WB): 35°C/24°C, Water Temperature (Inlet/Outlet): 12°C/7°C</b>						
Max. Cooling Capacity	kW	5.22	8.73	13.78	8.76	13.80
Max. Cooling Power Input	kW	2.24	3.78	6.63	3.76	6.60
Max. Cooling Current Input	A	9.7	16.4	28.8	5.7	10.0
Operating Ambient Temperature	°C	-25~43				
Max. Leaving Water Temperature	°C	75				
Max. Power Input	kW	3.1	4.9	7.7	6.6	9.8
Max. Current Input	A	13.5	21.4	33.5	10.0	15.0
Compressor	/	DC Inverter				
Fan Motor	/	DC Inverter				
Circulating Pump	/	DC Inverter				
ErP Class (35°C)	/	A+++	A+++	A+++	A+++	A+++
ErP Class (55°C)	/	A++	A++	A++	A++	A++
Sound Pressure (1m)	dB(A)	43	44	48	44	48
Circulating Pump Water Head	m	9.0	9.0	11.0	9.0	11.0
Water Connection	inch	1				
Net Dimension (LxWxH)	mm	1100x410x780	1362x450x920	1250x520x1350	1362x450x920	1250x520x1350

\*The above data are subject to modify based on continuous improvement without advance notice. Please refer to those on real unit, and thanks for your attention to the latest version.

