



# VariWarm Focus

R290 Air to Water Heat Pump



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# Care For You and the Earth

# R290

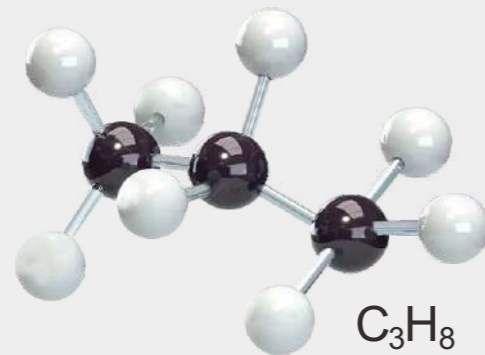
R290 vs R32

99.6%

less carbon emission  
to the environment  
with R290

## R290 Eco Friendly Refrigerant

As a new generation of ecologically friendly refrigerant with 0 ODP, R290 is adopted for VariWarm Focus. Compare with R410A (GWP: 2088) and R32 (GWP: 675), R290 has GWP as low as only 3, making it one of the refrigerants with the least influence on global warming.



## Outstanding Advantages

for Heat Pump Performance

R290 has high thermal conductivity, allowing for efficient heat transfer, thereby improving the thermal efficiency of heat pump systems, and reducing cost of energy consumption. Additionally, due to its unique molecular structure and physical properties, it can evaporate and condense at lower temperatures, enabling heat pump units to operate reliably at ultra-low temperature.

### Max. Leaving Water Temperature: 75°C

Designed to uphold the standards of excellence, the unit has a remarkable feature that sets it apart - the ability to deliver an impressively high water outlet temperature of up to 75°C, ensuring your space is not only comfortably heated, but also offering the versatility to meet various hot water demands.

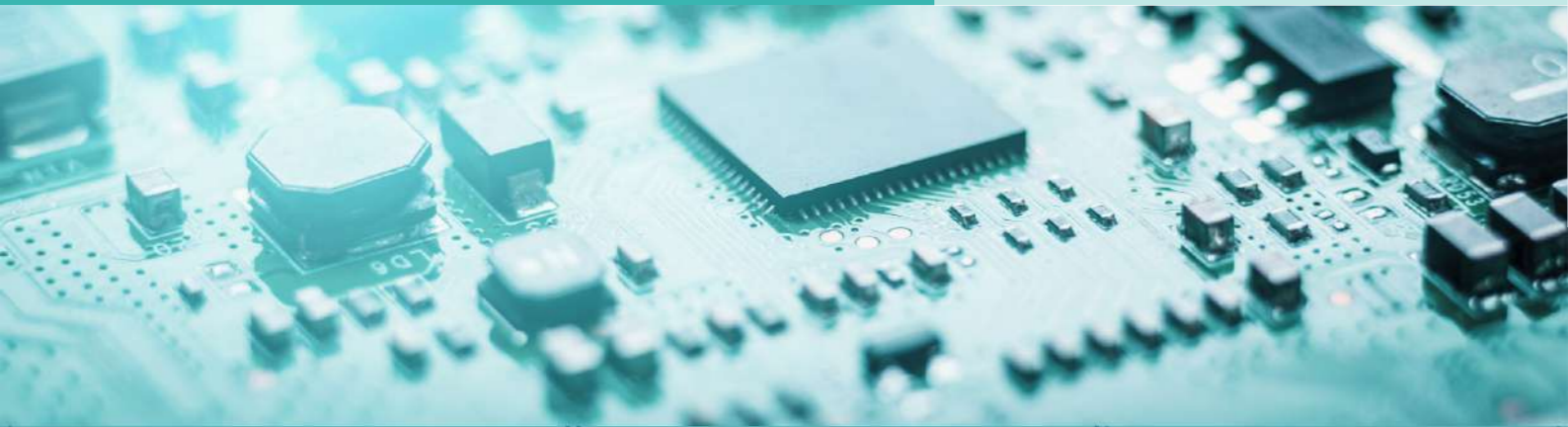
### Min. Operation Air Temperature: -25°C

Unlike ordinary heat pumps, UWO inverter heat pump is especially designed for heating in cold weather. Taking full advantage of high-performance compressor and R290 refrigerant, and combining with the latest heat pump technology such as intelligent defrosting and sophisticated gas flow regulation, the unit can still perform well at air temperature as low as -25°C.

# Eco & Comfort

## Full Inverter Technology

The inverter technology has been applied to the key components of the unit, namely the Inverter Compressor, DC Fan Motor and DC Water Pump. It intelligently regulates the running speed of these three main parts according to the usage, making the unit more energy-efficient and silent under the premise of stable operation.



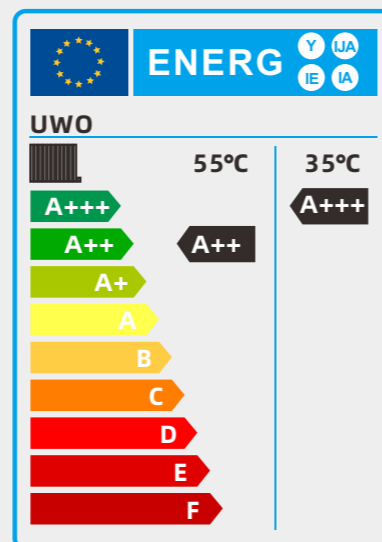
## Ultra Silent Operation


Unique noise reduction technology has been applied to minimize the sound of the unit. The operating noise of VariWarm Focus can be as low as 43~48dB(A) at 1 meter, equivalent to the level of a refrigerator.

## Energy Efficiency Class A+++


Compressor with outstanding performance is selected and high-quality components are matched in a scientific way. Through reasonable and unique logic control, the unit not only runs stably and quietly, but its energy efficiency grade can reach the highest level A+++, which can effectively lower the energy consumption.

- ✓ Inverter Compressor
- ✓ DC Fan Motor
- ✓ DC Water pump







A twin-rotary inverter compressor with more stable performance is utilized. And the gas system has been enhanced to eliminate resonance.




VariWarm Focus is equipped with the most suitable DC inverter water pump according to different capacities, guaranteeing a whisper-quiet performance of the unit.



Strategically designed fan blades and a precision-engineered fan motor collaborate to significantly reduce the eddy shading and overall vibrating, and diminish operational noise as a result.



This egg-shaped absorbing acoustic sponge is attached to effectively absorb sound.

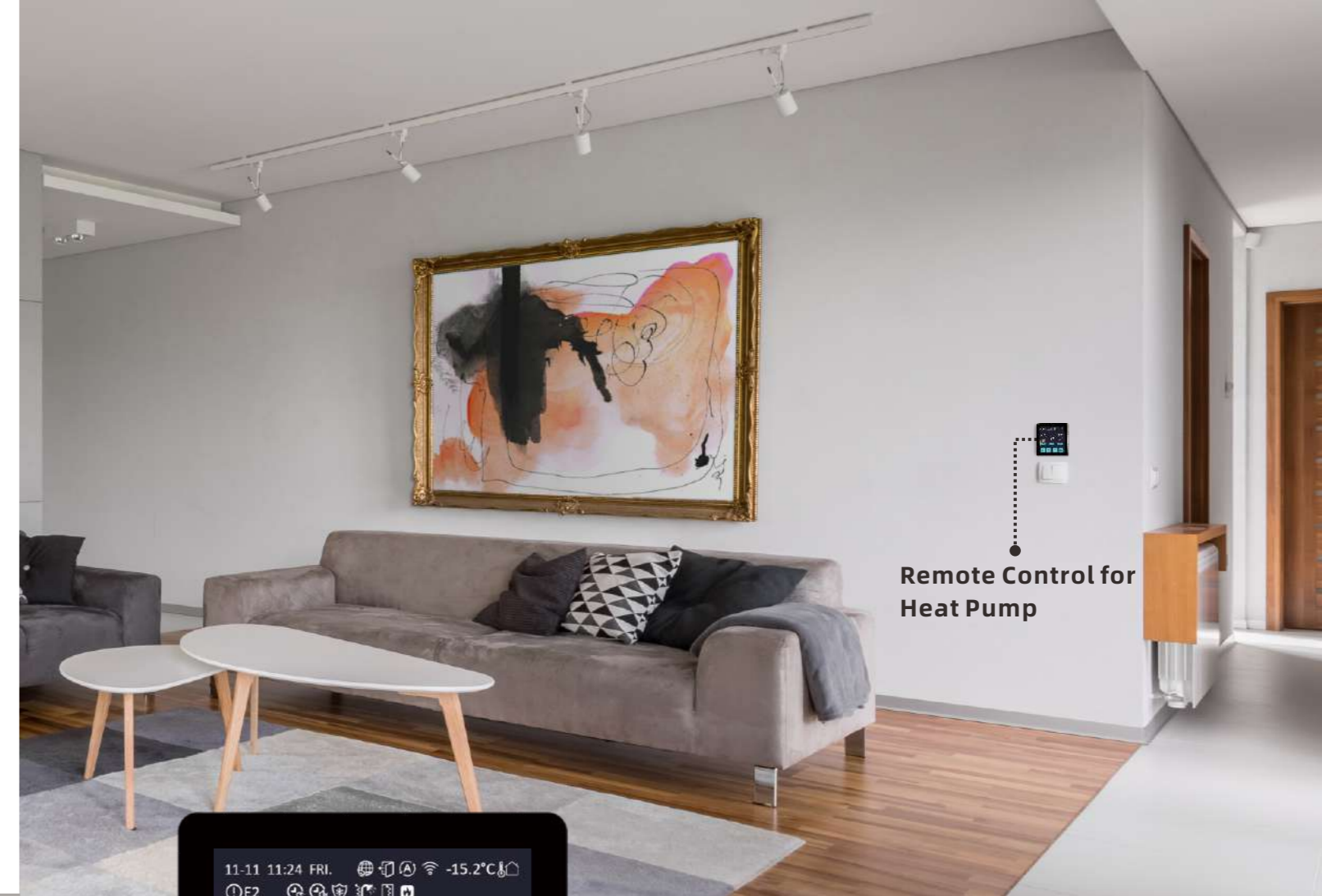
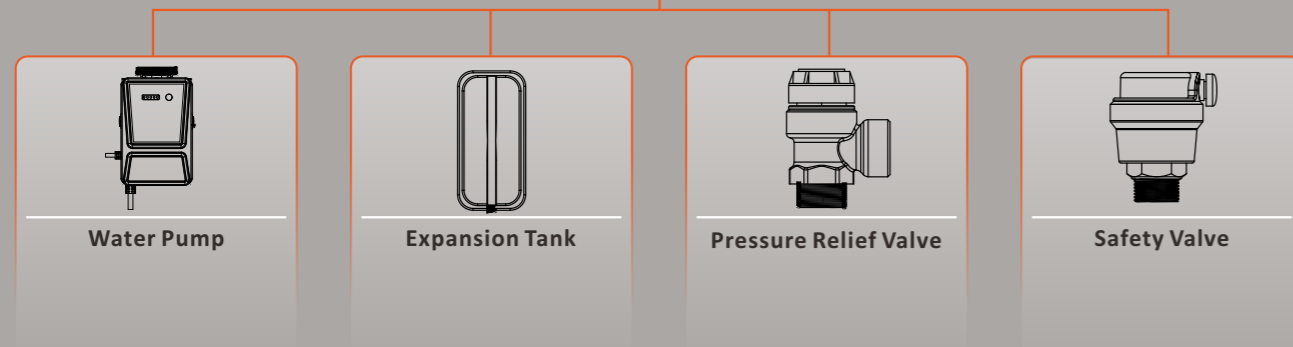
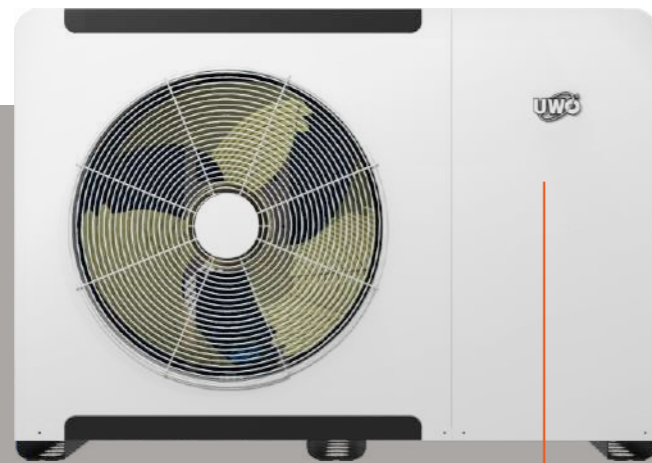


The compressor is wrapped by a layer of high-density sound-absorbing foam, further reducing the noise.

# Modern Design

## Highly Integrated Structure

In order to save the tedious installation steps, VariWarm Focus adopts a highly integrated design. The built-in hydraulic parts such as water pump, expansion tank, pressure relief valve, safety valve and other related components are highly integrated, greatly improving the ease of installation.



## User Friendly Interface

Colored touch screen wired controller with humanized control is equipped for VariWarm Focus. Users can easily control the heat pump by various settings and monitor the operation status of the unit.

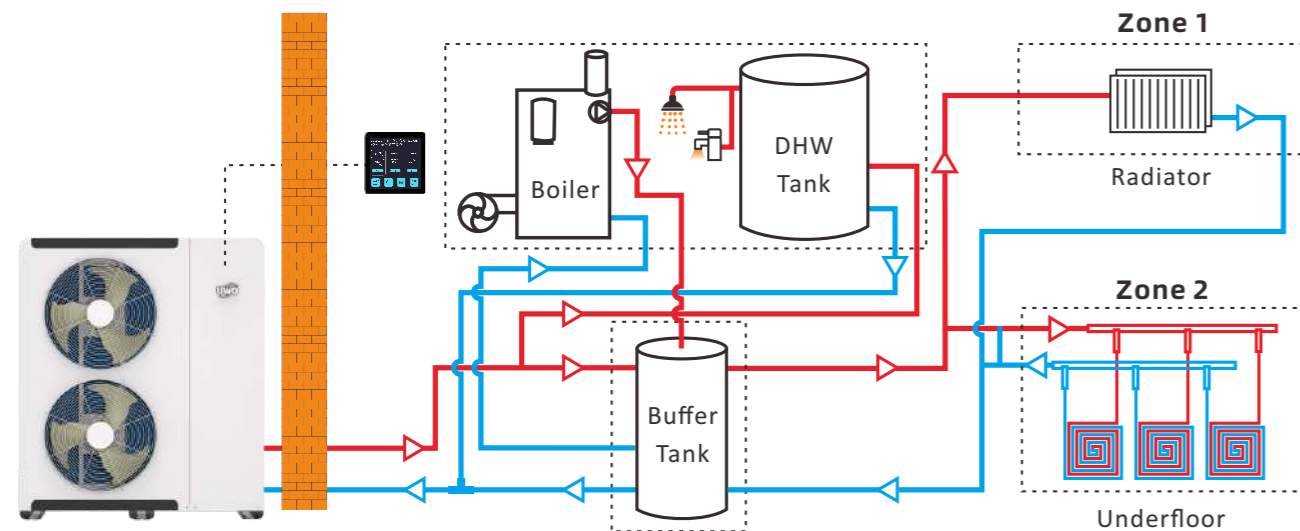
- 5 Temperature Modes
- 3 Operating Modes
- Schedule Setting
- Climate Curve Control
- Status & Technical Parameters
- Anti-legionella & Anti-freezing

# Multi-functional Application



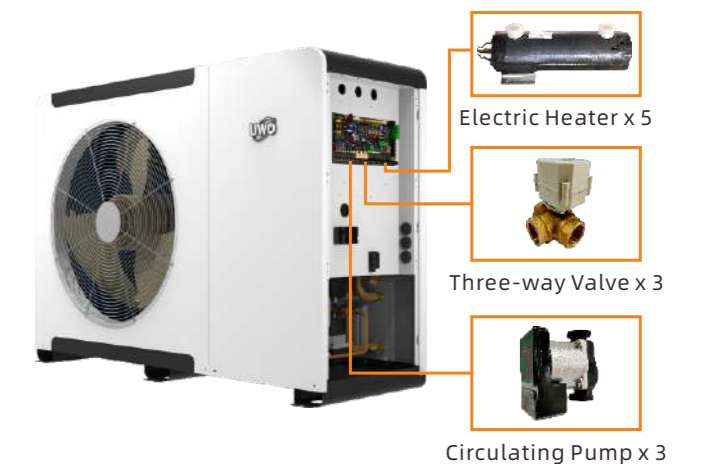
## Two Zone Heating

VariWarm Focus can be used for both heating/cooling and DHW. And extra heat source (boiler) can also be combined in the heating circuit. For better providing a comfortable experience, the unit adopts double zone control logic. Different target water temperatures can be set for various terminals, reducing temperature fluctuation and increasing energy efficiency.



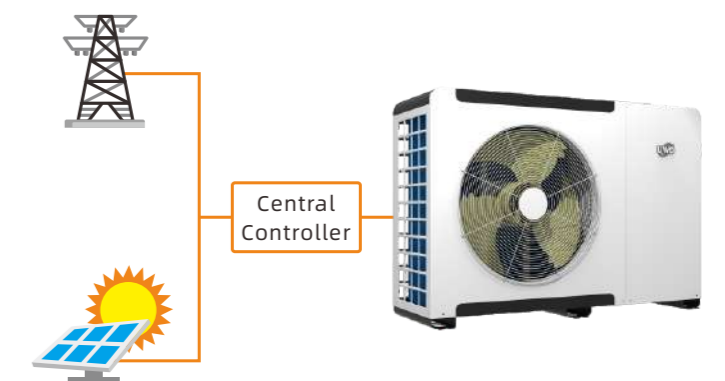
## Extra Connection & Control

In addition to its standard configuration, the unit offers the capability to connect and simultaneously control up to five electric heaters, three three-way valves and three water pumps. This expanded functionality elevates its versatility, enabling it to cater to a diverse range of requirements.



## SG-Ready & PV-Ready

"SG READY" and "PV READY" function can be incorporated into VariWarm Focus, offering a comprehensive solution for seamless blend of solar and grid power. In this way, the power consumption during operation of the heat pump can be minimized.



# Intelligent Control

VariWarm Focus provides various methods for users and engineers to remotely monitor and control the heat pump via wired controller, smart phone, upper computer and service platform. This comprehensive compatibility underscores our commitment to providing cutting-edge solutions that ensure optimal convenience and control.

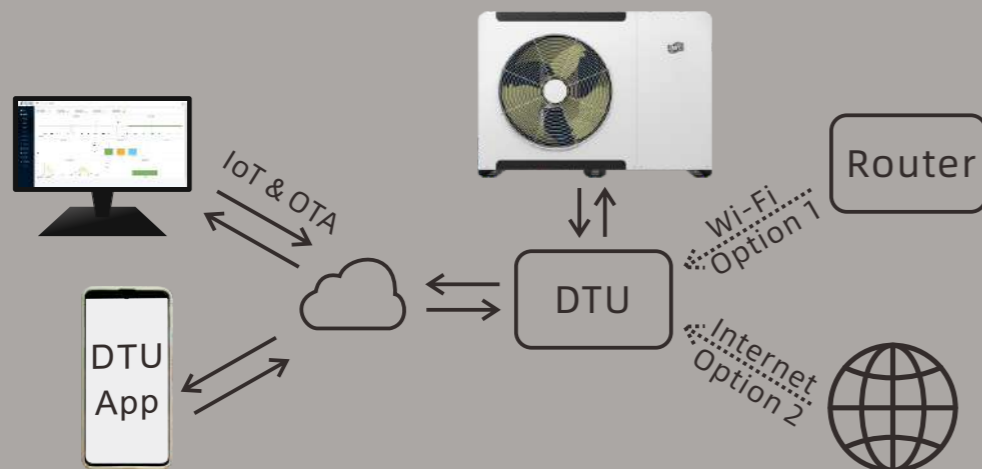
## By Upper Computer



## By Wired Controller & App



## By DTU



# Parameters

Factory Model No.	UHC	80R2V	120R2V	200R2V	120R2TV	200R2TV
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.

