



CloverLife

Comfort for your home

DC Inverter Air to Water Heat Pump

# DC Inverter Air to Water Heat Pump

Heating  
Cooling+DHW



A+++  
ErP Energy Level

55°C  
Water Outlet

Low  
Noise

R32  
NEW REFRIGERANT GAS

CloverLife Series

- Inverter Technology
- Smart Control
- Intelligent Defrosting
- Colorful Touch Display



## What are DC Inverter Air to Water Heat Pumps?

Air to water heat pump is a sustainable alternative to traditional fossil fuel heating systems and with their green credentials and high efficiency operation, they will play a major role in helping the country achieve its net zero carbon emission targets.

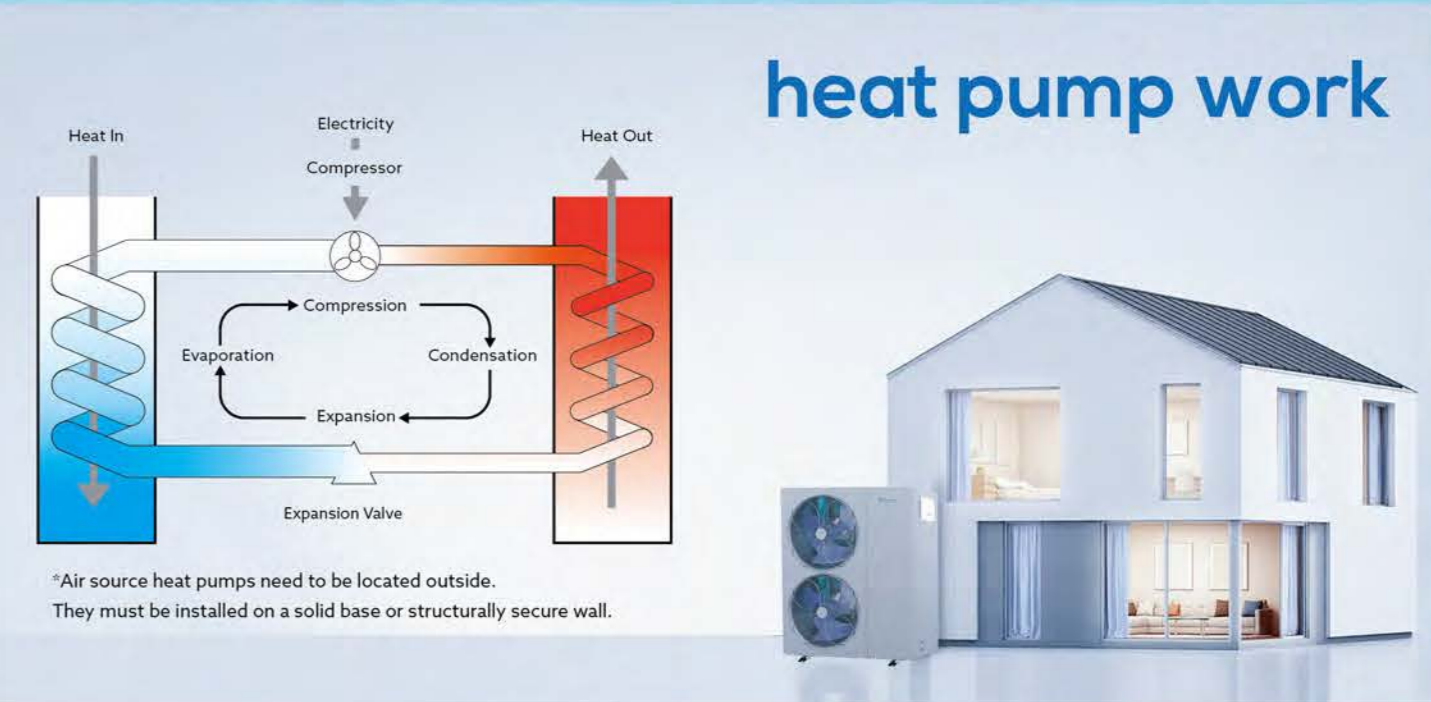
In brief, air source heat pumps utilize the heat energy in the air and convert it into usable energy to heat homes. Heat pumps are 'air to water' systems (as opposed to 'air to air' heat pumps) which mean that they capture heat energy from the air and transfer this into 'wet' heating systems, such as radiators or underfloor heating.

CloverLife heat pumps are monobloc units. The heat pump draws air in and transfers it over an evaporator where R32 refrigerant is exposed to this air. The liquid refrigerant, which has a low boiling point, boils off to a gas and absorbs the latent heat energy within the air. The gas is then compressed which increases the heat content in the refrigerant before passing through a heat exchanger. Here, the gas condenses back to a liquid while transferring the heat to the water of the heating system.

The liquid refrigerant is then re-circulated through the evaporator and the cycle is repeated.

The system water which has been heated up then exits the rear of the heat pump via flow and return pipework and is circulated throughout the rest of the central heating to provide space heating and hot water within the home.

Air source heat pumps do require electricity to operate, and approximately 75% of the energy required is generated from the outside air, with only 25% being required from electricity. This means that 75% of the energy you use will be from a renewable source, which will reduce your emissions and CO2 impact.



## heat pump work

\*Air source heat pumps need to be located outside. They must be installed on a solid base or structurally secure wall.



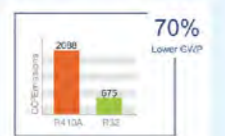
# CloverLife Series Features:



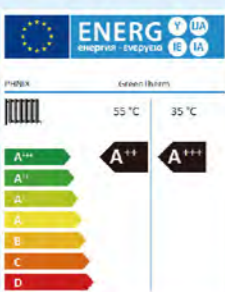
- Function: heating + cooling + hot water –all-in-one
- Voltage: 220v-240v -inverter - 1n or 380v-420v -inverter - 3n
- Compact units available from 6kW to 22kW
- Using R32 green refrigerant
- Super low noise as low as 50dB(A)
- Energy-saving up to 80%
- Stable running at -25°C ambient temperature
- Adopted twin-rotor panasonic inverter compressor
- High efficiency A+++ energy level
- Wi-Fi app smart controlled

**Panasonic DC Inverter EVI Technology**  
Being the smart heat pumps, CloverLife perfectly combines eco-friendly R32 refrigerant and advanced new technology of EVI DC inverter to produce 60°C domestic hot water as well as stable house heating even under -25°C low temperature condition, reducing power consumption and improve the heating capacity.

**R32 Environmental Refrigerant**  
Compared to the refrigerants widely used today, such as R22 and R410A, R32 has a global warming potential that is two-thirds lower and it is remarkable for its low environmental impact.  
· R32 has a GWP of 675, roughly 30% lower than that of R410A.  
· R32 systems use up to 20% less refrigerant than R410A, making them more efficient and cost less to operate.  
· Ozone Depletion Potential of 0.  
· Easier to recycle than R410A, as R32 is a single component refrigerant.



**Super High Efficiency A+++**  
CloverLife Series DC inverter technology enables the heat pump to adjust its frequency from 30Hz to 90Hz according to real heating requirements. Thanks to this technology, CloverLife Series achieves an energy level of A+++ according to ErP directive.



**DTU**  
To deliver the best user experience, CloverLife series is designed with a DTU module for remote data transferring, and then you can easily monitor the running status of your heating system.

**RS485**  
The intelligent controller with RS 485 is adopted to realize the linkage control between the heat pump unit and the terminal end. Multiple heat pumps can be controlled and connected to be well monitored. With Wi-Fi APP enables you to operate the units through a smart phone wherever and whenever you are.

**Silent Running**  
In addition to choosing a high-quality, stable and low noise compressor, CloverLife utilizes a fully upgraded internal design, perfectly keeps an ultra-low operating noise of less 50dB(A) at a distance of 1-meter, make you in a peaceful and comfortable green life.

**Multi -function Selections**  
There are 4 operation modes to be selected:  
· Heating+Cooling+Hot Water  
· Heating+ Hot Water  
· Cooling+Hot Water  
· Heating+ Cooling

**Intelligent Defrosting**  
CloverLife can intelligently determine whether to go into defrosting mode according to the operating condition, ambient temperature and frost thickness. As a result, the unit operates with high heating capacity and energy efficiency.

**Running at Low Temperature**  
CloverLife Series can maintain a more stable and efficient performance in a ambient temperature from -25°C to 43°C, providing a wide range of applications for users.

**Smart Colorful Touch Display**  
Cloverlife is with a smart colorful touch display which is installed on the wall. Featuring precise control, water temperature display, easy timing, one-key mute and more, it provides an easy and convenient user experience.



# Applications:

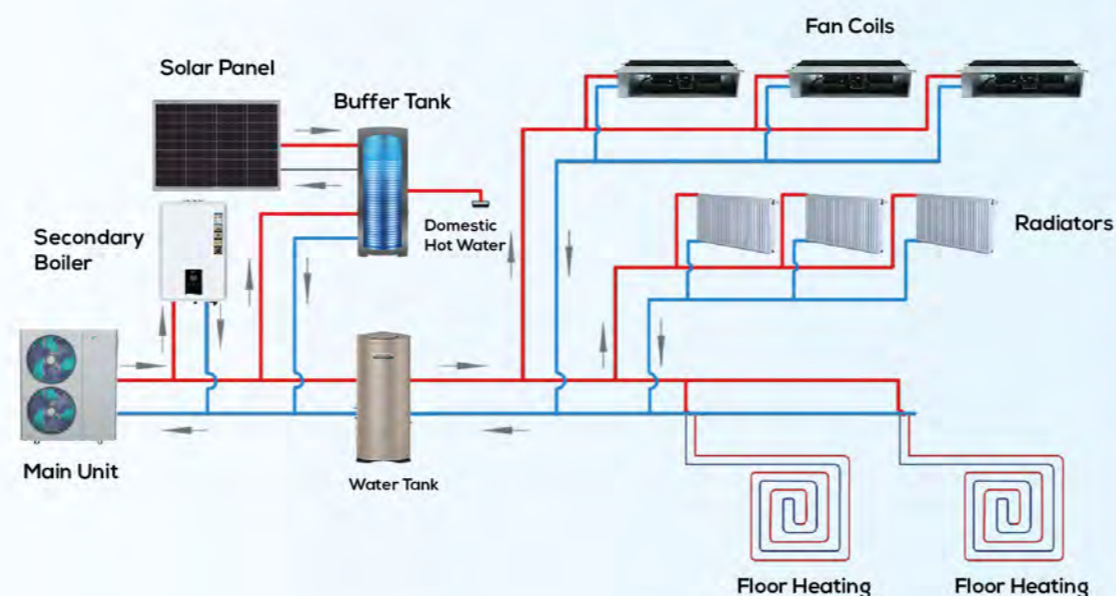


## The CloverLife Series can be operated in combination with:

- 1) Electric Water Heater
- 2) Conventional Boiler
- 3) Solar Hot Water Systems

The CloverLife Series deliver the heat through a heating distribution system, such as radiators or under-floor heating or fan coils or air conditioner for reliable heating, cooling and domestic hot water through the seasons. Depending on the season and air temperature, the heat pump automatically adjusts and operates optimally in the heating or cooling modes for optimal energy-saving.

The CloverLife Series suits a wide variety of applications, including space heating, domestic hot water production for residential and commercial projects.



# Technical Data



DC Inverter Heat Pump	Unit	WDLRK-6IBMA1	WDLRK-8IBMA1	WDLRK-10IBMA1	WDLRK-12IBMA1	WDLRK-14IBMA1	WDLRK-16IBMA1
Cooling Conditions	/	Outdoor Air Temperatur 35°C DB/24°C WB, Indoor Water Temp 12°C/7°C					
Rated cooling capacity	kW	1.12~5.3	1.58~7.5	2.02~9.6	2.35~11.2	2.81~13.4	3.21~15.3
Heating Cooling Input	kW	0.25~1.89	0.35~2.67	0.45~3.42	0.52~3.96	0.62~4.77	0.71~5.45
Cooling EER	kW	4.53~2.81	4.53~2.81	4.53~2.81	4.53~2.81	4.53~2.81	4.53~2.81
Heating Conditions	/	Outdoor Air Temp 7°C DB/6°C WB, Indoor Water Temp 30°C/35°C					
Rated heating capacity	kW	1.86~8.3	2.46~10.5	3.06~12.5	3.63~15	4.26~17.2	4.86~18.6
Heating SCOP	kW	0.31~1.83	0.41~2.75	0.51~2.75	0.6~3.3	0.7~3.78	0.8~4.09
Cooling power consumption	W/W	6.10~4.54	6.10~4.54	6.10~4.54	6.10~4.54	6.10~4.54	6.10~4.54
Heating Conditions	/	Outdoor Air Temp 7°C DB/6°C WB, Indoor Water Temp 50°C/55°C					
Rated heating capacity	kW	1.6~6.2	2.12~8.2	2.63~10.0	3.12~11.8	3.66~14.2	4.18~15.8
Heating Power Input	kW	0.35~2.38	0.46~3.15	0.58~3.85	0.69~4.53	0.81~5.46	0.92~6.07
Heating SCOP	W/W	4.55~2.6	4.55~2.6	4.55~2.6	4.55~2.6	4.55~2.6	4.55~2.6
Voltage	V/Hz	220V-240V -Inverter - 1N					
Rated heating water temperature	°C	Hot water: 55°C / Heating:45°C / Cooling:12°C					
Rated water flow	m³/h	1.42	1.81	2.15	2.58	2.96	3.2
Rated of waterproof	/	IPX4					
Control mode	/	Heating,Cooling,DHW, Heating+DHW,Cooling+DHW					
Main board control signal output	/	Linked switch, RS485, Electric 3-way valve, Water pump.					
Refrigerant	/	R32					
Compressor	Type	Double-rotor type					
	Quantity	1					
	Brand	Panasonic Inverter					
	Net size	1150*425*775	1150*425*775	1150*425*775	1150*425*775	1350*480*930	1350*480*930
	Weight	92	92	93	98	103	108
	Noise level	≤50					
Fan	Type	Smart fan motor					
	Operation ambient temperature	(-25°C -- 43°C)					
	Water tank heat exchanger	/					
	Water tank working pressure	≤0.8					
	Inlet pipe diameter	G1"	G1"	G1"	G1"	G1"	G1"
	Outlet pipe diameter	G1"	G1"	G1"	G1"	G1"	G1"
	Packing size	1250*525*975	1250*525*975	1250*525*975	1250*525*975	1450*550*1000	1450*550*1000
	Wi-Fi function	√					
	ErP Energy class	35°C A+++/ 55°C A++					



DC Inverter Heat Pump	Unit	WDLRK-14IBMA1	WDLRK-16IBMA1	WDLRK-18IBMA1	WDLRK-20IBMA1	WDLRK-22IBMA1
Cooling Conditions	/	Cooling ambient temperature(DB/WB):35°C / , Water inlet/outlet :12°C/7°C				
Rated cooling capacity	kW	2.41~11.5	2.85~13.6	3.25~15.5	3.72~17.7	4.05~19.3
Heating Cooling Input	kW	0.53~4.09	0.63~4.84	0.72~5.55	0.82~6.29	0.89~6.86
Cooling EER	kW	4.53~2.81	4.53~2.81	4.53~2.81	4.53~2.81	4.53~2.81
Heating Conditions	/	Heating ambient temperature (DB/WB): 7°C/6°C, Water inlet/outlet: 30°C/35°C				
Rated heating capacity	kW	3.66~15.3	4.36~17.3	4.83~18.6	5.46~21	6.09~22.6
Heating SCOP	kW	0.6~3.37	0.72~3.81	0.8~4.09	0.91~4.62	1.0~4.98
Cooling power consumption	W/W	6.10~4.54	6.10~4.54	6.10~4.54	6.10~4.54	6.10~4.54
Heating Conditions	/	Heating ambient temperature (DB/WB): 7°C/6°C, Water inlet/outlet: 30°C/35°C				
Rated heating capacity	kW	3.15~12	3.75~14.2	4.16~15.8	4.7~18.1	5.24~19.8
Heating Power Input	kW	0.69~4.61	0.82~5.46	0.92~6.07	1.03~6.96	1.15~7.61
Heating SCOP	W/W	4.55~2.6	4.55~2.6	4.55~2.6	4.55~2.6	4.55~2.6
Voltage	V/Hz	380V-420V -Inverter - 3N				
Rated heating water temperature	°C	Hot water: 55°C / Heating:45°C / Cooling:12°C				
Rated water flow	m³/h	2.63	3.2	3.2	3.61	3.88
Rated of waterproof	/	IPX4				
Control mode	/	Heating,Cooling,DHW, Heating+DHW,Cooling+DHW				
Main board control signal output	/	Linked switch, RS485, Electric 3-way valve, Water pump.				
Refrigerant	/	R32				
Compressor	Type	Double-rotor type				
	Quantity	1				
	Brand	Panasonic Inverter				
	Net size	1350*480*930	1350*480*930	1150*420*1380	1150*420*1380	1150*420*1380
	Weight	98	103	108	136	142
	Noise level	≤50				
Fan	Type	Smart fan motor				
	Operation ambient temperature	(-25°C -- 43°C)				
	Water tank heat exchanger	/				
	Water tank working pressure	≤0.8				
	Inlet pipe diameter	G1"	G1"	G1"	G1"	G1"
	Outlet pipe diameter	G1"	G1"	G1"	G1"	G1"
	Packing size	1450*550*1000	1450*550*1000	1250*490*1450	1250*490*1450	1250*490*1450
	Wi-Fi function	√				
	ErP Energy class	35°C A+++/ 55°C A++				

The data above is only for a reference. For model specifications, please refer to the nameplate on the unit.