



Hien



CloverLife Series

DC Inverter Air to Water Heat Pump

Heating + Cooling + DHW



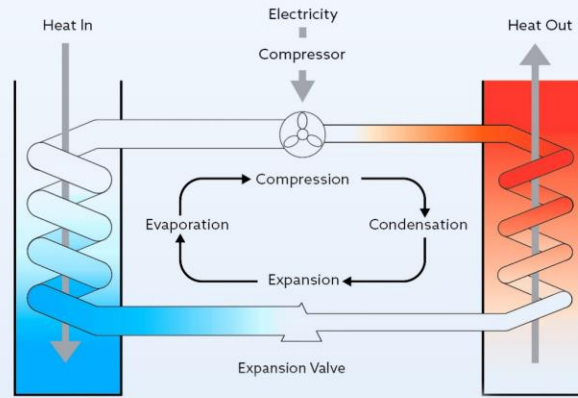
Comfort for your home

What are DC Inverter Airto Water Heat Pumps?

In brief, air source heat pumps utilize the heat energy in the air and convert it into usable energy to heat homes. Hien 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.



heat pump work



CloverLife Series Features:

- 1 . Function: heating + cooling + hot water -all-in-one
- 2 . Voltage: 220v-240v -inverter - 1n or 380v-420v -inverter - 3n
- 3 . compact units available from 6kw to 22kw
- 4 . Using R32 green refrigerant
- 5 . super low noise as low as 50 dB(A)
- 6 . Energy-saving up to 80%
- 7 . Stable running at -25°C ambient temperature
- 8 . Adopted twin-rotor Panasonic inverter compressor
- 9 . High efficiency A+++energy level
10. Wi-Fi app smart controlled
11. 9 optional languages





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.



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.



R32 Environmental Refrigerant

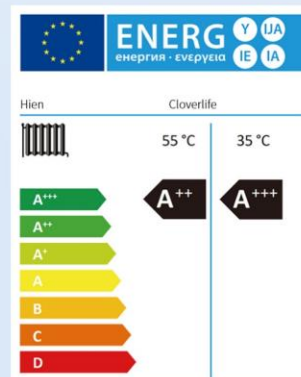
Compared to the refrigerants widely used today, such as R22 and R410A, R32 has a global warming potential that is two-thirds lower and it is remarkable for its low environmental impact.

- 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.



Multi -function Selections

There are 4 operation modes to be selected:

- Heating+Cooling+Hot Water
- Heating+ Hot Water
- Cooling+Hot Water
- Heating+ Cooling



Heating



Cooling



Hot Water



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.

Key Components



Panasonic EVI DC Inverter Compressor

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.



Flabellum & Fan Motor

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 than 50dB(A) at a distance of 1-meter, making you in a peaceful and comfortable green life.



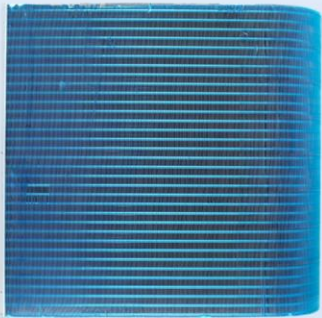
Plate Type Heat Exchanger

Danfoss Plate Heat Exchanger Plate heat exchanger with well-known brand is selected to increase heat exchange area for higher COP.



Main Control Board

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.



Finned Heat Exchanger

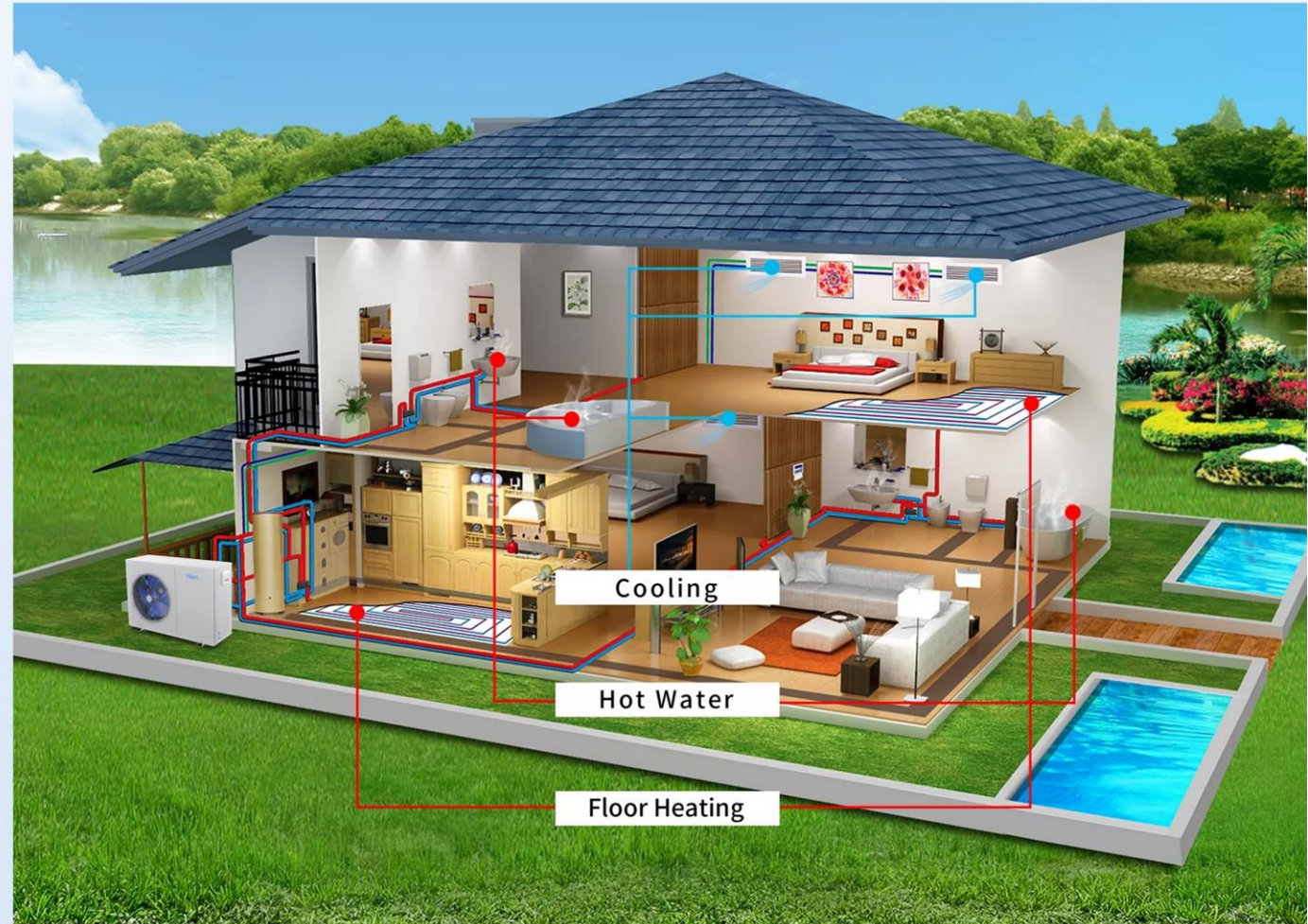
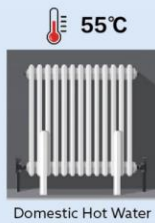
Hydrophilic Aluminum Finned Evaporator The finned heat exchanger is with corrugated copper tubes to greatly improve thermal efficiency, and with hydrophilic coating surface for sufficient defrosting.

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 underfloor 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.



Product parameters

													
Dc Inverter Heat Pump		Unit	WDLRK-6IBMA1	WDLRK-8IBMA1	WDLRK-10IBMA1	WDLRK-12IBMA1	WDLRK-14IBMA1	WDLRK-16IBMA1	WDLRK-14IBMA1	WDLRK-16IBMA1	WDLRK-18IBMA1	WDLRK-20IBMA1	WDLRK-22IBMA1
Cooling Conditions		/	Outdoor Air Temperatur 35°C DB/24°C WB, Indoor Water Temp 12°C/7°C.						Cooling ambient temperature (DB/WB): 35°C / , Water inlet/outlet : 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	2.41~11.5	2.85~13.6	3.25~15.5	3.72~17.7	4.05~19.3
Cooling Power 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	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	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.						Heating ambient temperature (DB/WB): 7°C/6°C, Water inlet/outlet: 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	3.66~15.3	4.36~17.3	4.83~18.6	5.46~21	6.09~22.6
Heating Power Input		kW	0.31~1.83	0.41~2.31	0.51~2.75	0.6~3.3	0.7~3.78	0.8~4.09	0.6~3.37	0.72~3.81	0.8~4.09	0.91~4.62	1.0~4.98
Heating SCOP		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	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.						Heating ambient temperature (DB/WB): 7°C/6°C, Water inlet/outlet: 30°C/35°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	3.15~12	3.75~14.2	4.16~15.8	4.7~18.1	5.24~19.8
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	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	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						380V-420V -Inverter - 3N				
Rated heating water temperature		°C	Hot water: 55℃ / Heating: 45℃ / Cooling: 12℃						Hot water: 55℃ / Heating: 45℃ / Cooling: 12℃				
Rated water flow		m³/h	1.42	1.81	2.15	2.58	2.96	3.2	2.63	2.97	3.2	3.61	3.88
Rated of waterproof		/	IPX4						IPX4				
Control mode		/	Heating, Cooling, DHW, Heating+DHW, Cooling+DHW						Heating, Cooling, DHW, Heating+DHW, Cooling+DHW				
Motherboard control signal output		/	Linked switch, RS485, Electric 3-way valve, Water pump.						Linked switch, RS485, Electric 3-way valve, Water pump.				
Refrigeration		/	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32
Compressor	Form	/	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type	Double-rotor type
	Quantity	/	1	1	1	1	1	1	1	1	1	1	1
	Brand	/	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter	Panasonic Inverter
Outdoor unit	Net size	mm	1150*425*775	1150*425*775	1150*425*775	1150*425*775	1350*480*930	1350*480*930	1350*480*930	1350*480*930	1150*420*1380	1150*420*1380	1150*420*1380
	Weight	kg	92	92	93	98	103	108	98	103	108	136	142
	Nosie level	dB(A)	≤50						≤50				
Fan	Form	/	Smart fan motor						Smart fan motor				
Operation ambient temperature		°C	(-25℃ -- 43℃)						(-25℃ -- 43℃)				
Water tank heat exchanger		Liter	/	/	/	/	/	/	/	/	/	/	/
Water tank working pressure		MPa	≤0.8						≤0.8				
Inlet pipe diameter		mm	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1 1¼"	G1 1¼"
Outlet pipe diameter		mm	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1 1¼"	G1 1¼"
Packing size		mm	1250*525*975	1250*525*975	1250*525*975	1250*525*975	1450*550*1000	1450*550*1000	1450*550*1000	1450*550*1000	1250*490*1450	1250*490*1450	1250*490*1450
WI-FI function		/	√	√	√	√	√	√	√	√	√	√	√
ErP Energy class		/	35℃A+++ / 55℃A++						35℃A+++ / 55℃A++				



Zhejiang Hien New Energy Equipment Co.,Ltd.

No.9, Chuangxin Road, Yueshang Pioneer Park
Yueqingwan Port District, YueqingCity, Wenzhou City, Zhejiang Province

www.hien-ne.com