

NULITE HEAT PUMP

The Piloteer Of European Inverter 3 in 1 Heat Pump

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www.ne01-e.com / www.nulitegroup.com



Nulite Heat Pump

Nulite Heat Pump

Nulite Heat Pump



Your Best Heat Pump Supplier



01. ■ Brief Introduction Of Nulite

02. ■ Our Honours

03. ■ Factory Shots

04. ■ Development Course

05. ■ What is Air Source Heat Pump?

06. ■ Principle Of Air Source Heat Pump

07. ■ Advantages Of Air Source Heat Pump

08. ■ Air Source Heat Pump VS Traditional Heating Equipments

08. ■ Inverter Heat Pumps

Monoblock Inverter Heating & Cooling & DHW units
Monoblock Inverter Heating & Coqing units
Inverter Household Inverter Heating units
Split Inverter Heating & Cooling & DHW units

09. ■ Swimming Pool Heat Pump

Inverter Swimming Pool Heat Pump
On/off Swimming Pool Heat Pump

10. ■ Household Inverter All in one Units

NL-FR1.0/EN(150L/200L/250L/300L)

11. ■ Commercial Hot Water & Heating Units

Room Temperature Hot water & heating units
Low Temperature Hot water & heating units
High Temperature Units

12. ■ Commercial Heating & Cooling Units

Commercial Room Temperature Heating & cooling units
Commercial Low Temperature Heating & cooling units

13. ■ Geothermal & Water Source Heat Pump

14. ■ Water Tank.

Enamel liner water tank
Stainless steel liner water tank

15. ■ Fan Coil Units

NULITE New Energy Brief Introduction

NULITE New Energy (Guangzhou) Co., Ltd. (Guangdong NULITE New Energy Group) is a China-Singapore joint venture established in 2003 with one marketing center and two modern manufacturing bases located in Guangzhou and Foshan City, covering an area of 200,000 square meters. With 12 automated production lines, 15 international certified laboratories, and 44 advanced material testing machines, NULITE manufactures with various types of heat pumps including R290/R32/R410A/R134A -30C EVI DC Inverter Heat Pumps, Spa Pool Heat Pumps, All in One Heat Pump Water Heater, Commercial Heating/Cooling/Hot Water Heat Pumps, Geothermal Heat Pumps, Fan Coil Units and Water Tanks.

With an annual production capacity of over 500,000 sets and a complete heat pump industry chain that includes self-owned major component factories such as galvanized sheet factory, evaporator & heat exchanger factory and water tank factory, NULITE has been dedicated to providing efficient and energy-saving solutions for both residential and commercial applications.

NULITE's strong team of R&D engineers and experts always focus on the advanced heat pump technology. Over the past twenty years, NULITE has obtained more than one thousand national and international patents related to the field of heat pumps, and won many government projects, such as coal-to-electricity projects in northern China.

NULITE's quality management system has passed ISO9001 and ISO14001 certification, and their products are CE, CB, ROHS, erP certified. With their continued efforts toward expanding overseas business, NULITE continues to export up to 40% of their products globally to 100 countries and regions such as Germany, Spain, UK, Sweden, Denmark, Poland, Czech Republic, Lithuania, Finland, Bosnia-Herzegovina, Serbia, Macedonia, Romania, Greece, Ukraine, Russia, South Africa, Vietnam, South Korea, United States, Chile, Ecuador, etc. NULITE has become one of the top heat pump manufacturers in China since 2013.

NULITE, Be Your Right!

1 200000^{m²}+
Company area

2 800+
Employees

3 50+
Engineers

4 12+
Production Lines

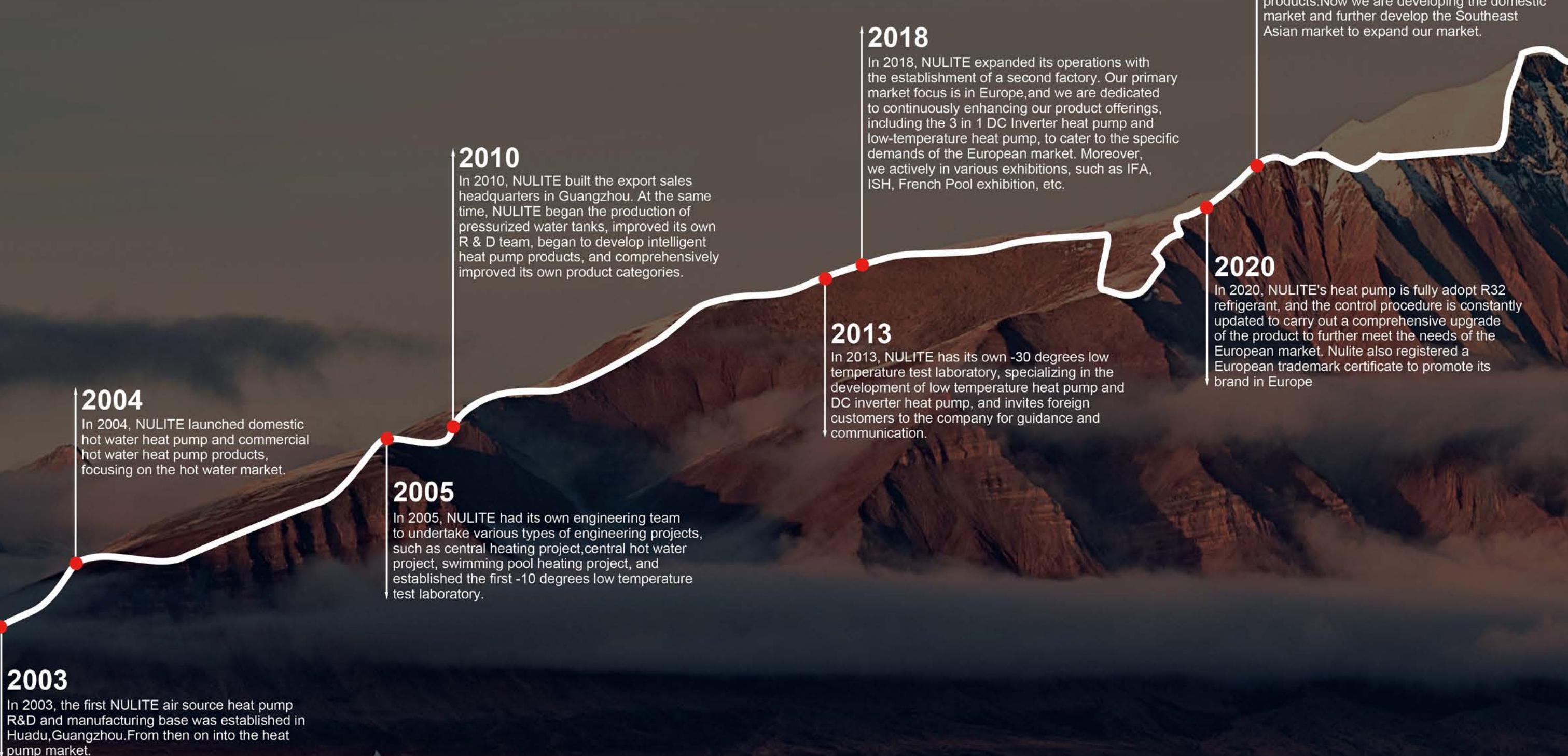
1 30+
Oversea Salesmen

2 30+
Quality Staff

3 2 Factories & 1 Marketing Center

Development Course

Professional DC Inverter Heat Pump
Manufacturer

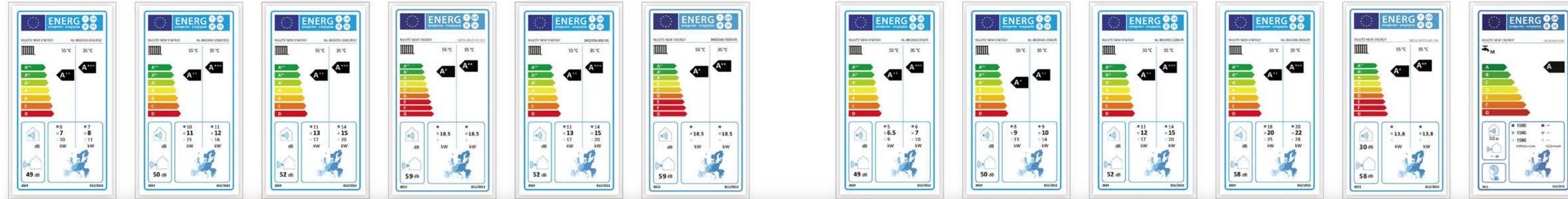


Certificate Honor

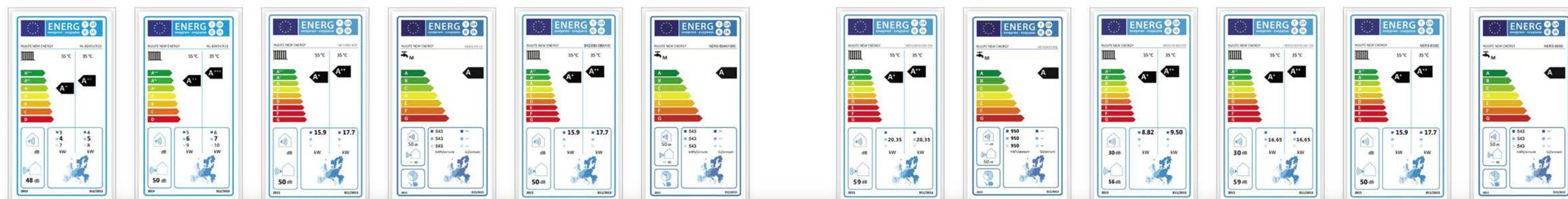
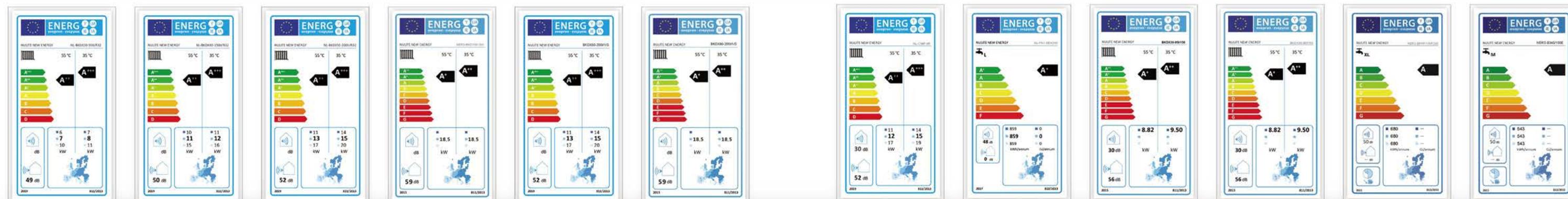
Professional Air Source Heat Pump Manufacturer



Certificates



Certificates



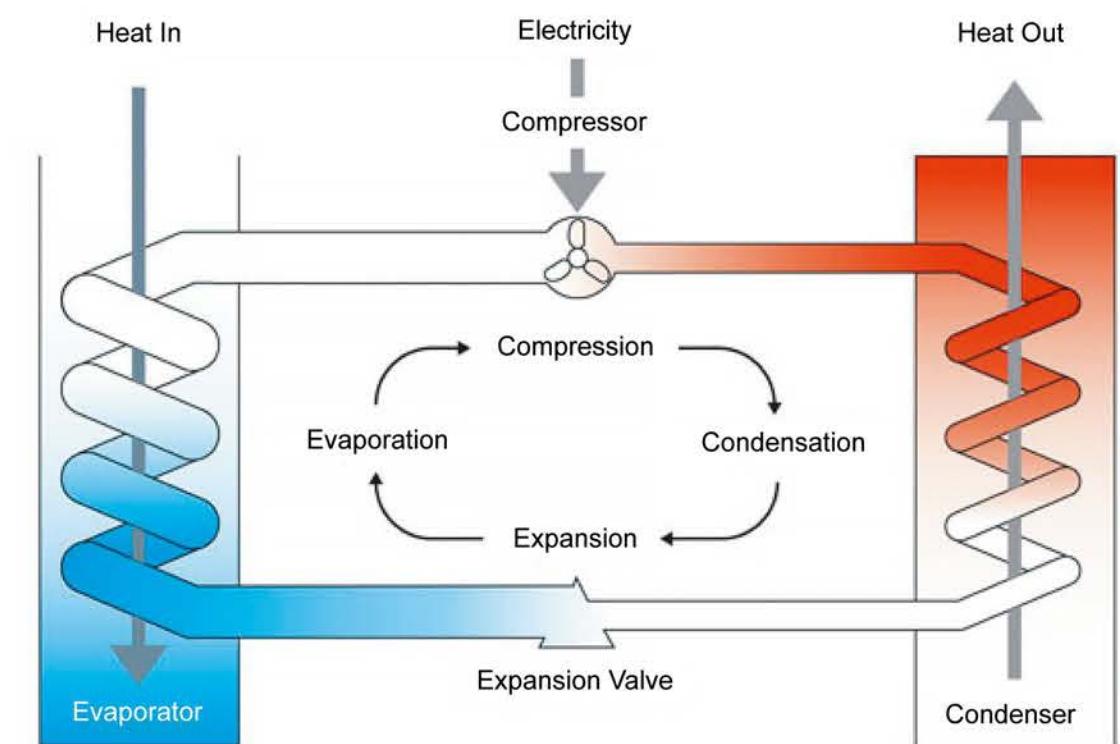
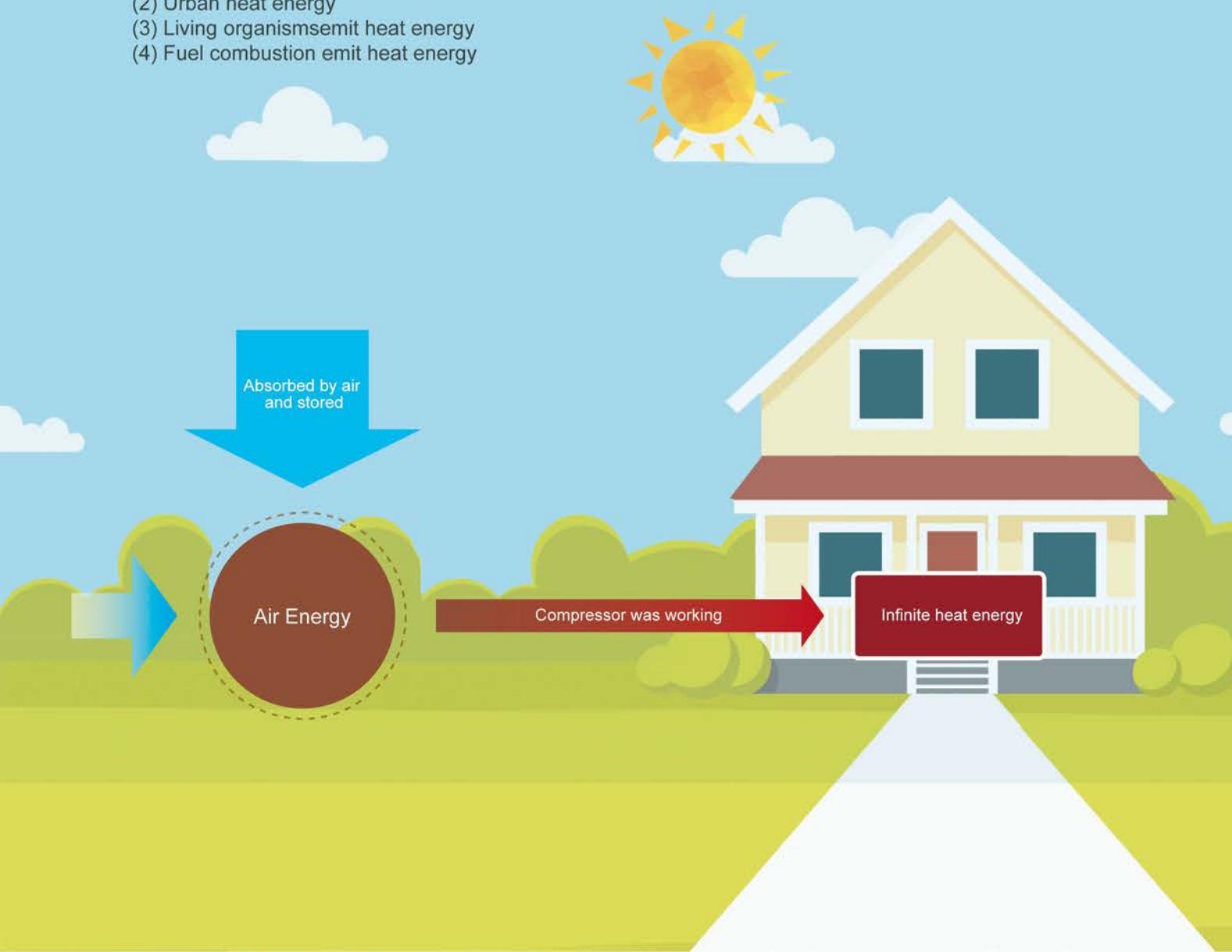
Heat Pump Working Principle

● What is air source?

Air source refers to the energy contained in the air, that is, the low-temperature heat source in the air. According to the law of conservation of energy, we know that energy is neither produced out of thin air nor disappeared out of thin air. Energy is transformed from one form to another or from one object to another. The earth's atmosphere is the best energy storage body, which can store a lot of energy after absorbing solar energy, heat energy emitted from cities, living organisms and fuel combustion. These energies can provide sustainable and recyclable green energy for human life.

● Energy sources in the air:

- (1) Solar energy
- (2) Urban heat energy
- (3) Living organism emit heat energy
- (4) Fuel combustion emit heat energy



► How Do Air Source Heat Pump Work

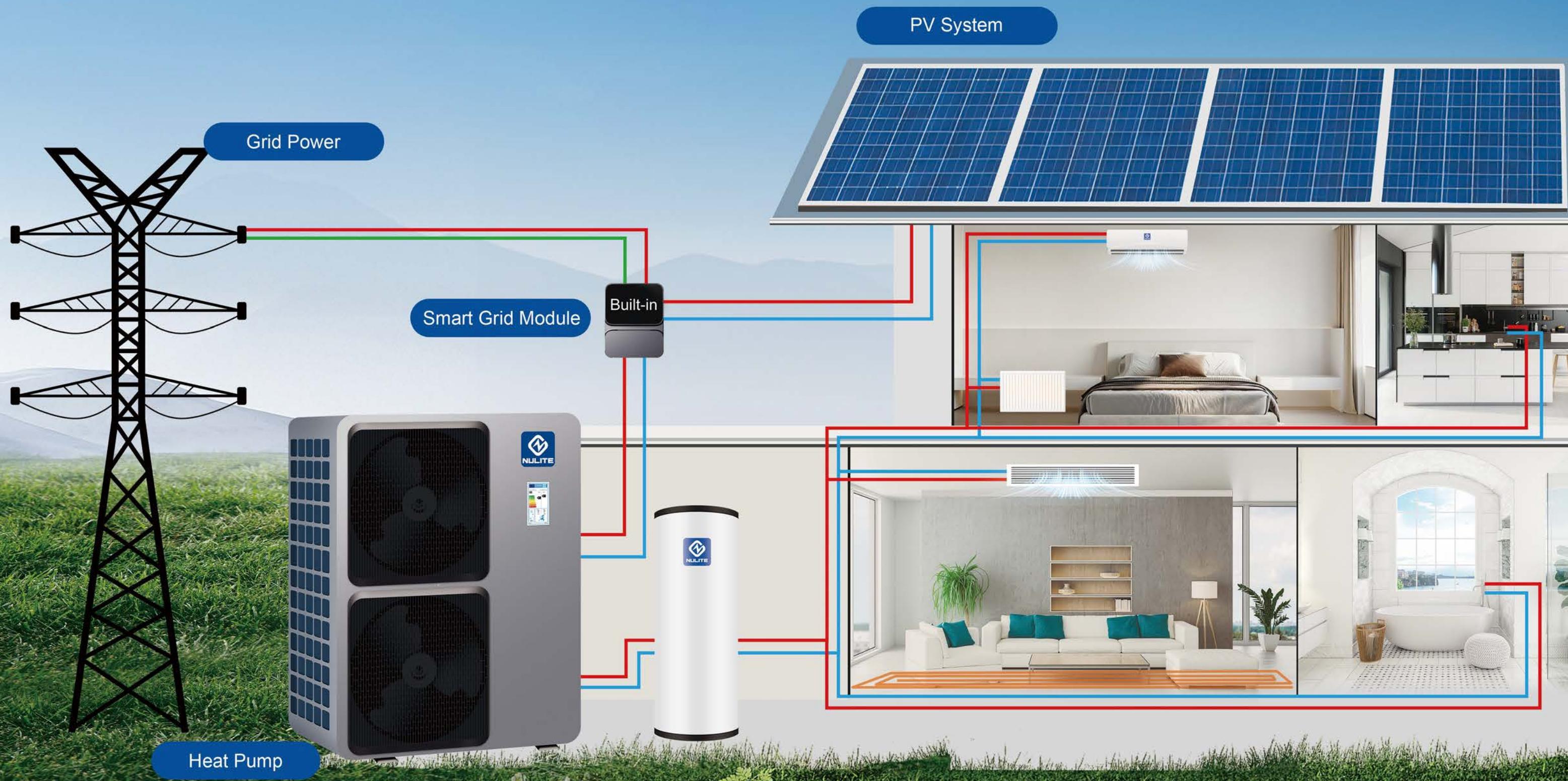
When the refrigerant passes through the heating system, the high temperature (usually 100 degrees or more) transforms it into vapour or gas while the energy produces heat.

The gas then goes through the compressor that increases its temperature, and then through the expansion valve that makes the hot air enter the building.

Next, the hot air passes in a condenser that turns the gas into liquid again. The heat produced by the energy in the evaporation phase passes through the heat exchanger again to restart the cycle and it is used to make the radiators work, for underfloor heating or for domestic hot water.

The heat pump works reversely to realize the cooling system.

Smart Photovoltaic Inverter Heat Pump System

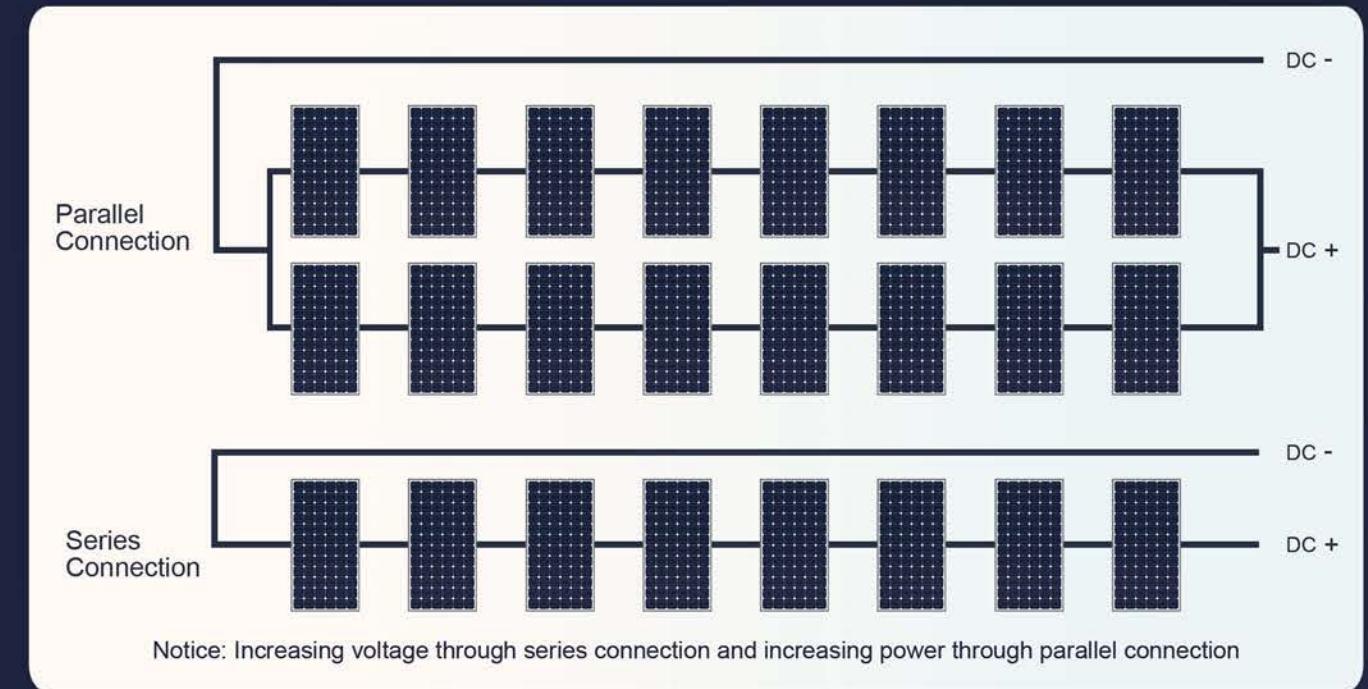


Smart Photovoltaic Inverter Heat Pump System



Solar Panels Suggested Connection Table

The Standard Of Each Solar Panel Specification: 450W 48V



The Solar Panels Quantity For Each Horse Power Heat Pump

Solar Panels			
<input checked="" type="radio"/> 3HP 230V		x8 Pcs	3600W
<input checked="" type="radio"/> 4HP 400V		x10 Pcs	4500W
<input checked="" type="radio"/> 5HP 400V		x12 Pcs	5400W
<input checked="" type="radio"/> 6HP 400V		x8 Pcs x8 Pcs	7200W
<input checked="" type="radio"/> 8HP 400V		x10 Pcs x10 Pcs	9000W
<input checked="" type="radio"/> 10HP 400V		x12 Pcs x12 Pcs	10800W

Notice:

1. the above data is for reference only, the specific data is subject to actual product.
2. In the best case, the electricity generated by photovoltaic panels meets 90% of the consumption of heat pumps.
3. Single phase Max DC 400V Input / Minimum DC 200V Input / Three phase Max DC 600V Input / Minimum DC 300V Input.

What Are The Benefits of Heat Pump?

Installing A Heat Pump Can Be A Great Investment And Comes With Several key Benefits For Your Home, The Environment And Your Pocket. Let's Break Them Down:



Lower Your Heating Bills

Comparing with traditional electric heater, air source heat pump can save 70% of electricity.



Reduce Your Carbon Emission

Air source heat pumps are highly efficient - in fact up to 4 times more efficient than typical boilers - and reduce your carbon emission by producing clean, renewable energy for which the government will pay you.



Efficient Even At Low Temperatures

Air source heat pumps can work in temperatures as low as -25°C while still providing your home with a readily available form of heating.



Low Maintenance And Long Lifetime

The lifetime of an air source heat pump is typically around 20 years.



No Time And Weather Restriction

Air source heat pump can work at different weather and all year around.



Environment-Friendly Refrigerant

Air source heat pump was adapt green refrigerant, with no pollution.



Intelligent Control, No need For Maintenance

Whole units is with intelligent automatically control, no need professional guy for maintenance



One Unit With Multiple Functions

One machine can achieve 3 functions in one (heating/cooling/hot water) , convenient and affordable

The Difference Between Air Source Heat Pump And Boiler

For Perspective Of Investment Cost

In the case of the same heat production, the electric boiler is slightly cheaper than the air source heat pump, but its electric power is three times larger.

For The Perspective Of Energy Saving

The air source heat pump absorbs the heat in the air and generates heat through the compressor compression, which saves about 4 times energy than traditional electricity; while the electric boiler is a device that directly generates heat without any conversion. Therefore, only 90% of the heat can be generated.

(1) The air source heat pump , 1kw can be converted to 4kw all year round.

(2) The boiler can only realize 1kw be converted to 0.95kw or lower.

Environmental Protection

Compared with fuel-based water heaters, the heat pump has no combustion emissions. The refrigerant uses environmentally friendly refrigerants, which has no pollution to the ozone layer.

The Difference In Security

During the heat generation process of the air source heat pump, there is no pressure and no risk of leakage. The heat generation process of the electric boiler, the main insulating shell, see if there is a possibility of leakage, and there is a risk of electric shock.

Electrical Power Requirements

The electric load required by the air source heat pump is 1/3 smaller than that of the electric boiler. And the requirements on the power grid are lower than the traditional electric boiler.

The Difference In Function

Air source heat pumps are air-conditioning equipment. During use, they can realize heating /cooling functions and daily domestic hot water according to user needs. While electric boilers are relatively single and can only achieve heating functions.

Comparison And Analysis Of Air Source Heat Pump

Wide Range Of Applications

It was not like the solar energy will be affected by bad weather such as overcast, rain, snow, and winter nights, while air energy is not affected. It can be used in a temperature range of -10-40°C. It can be used all day long throughout the year and can be used normally.

Can Be Heated Continuously

Compared with the traditional storage type solar water heater, the heat pump can continuously heat and supply hot water to meet the needs of users.

Low Operating Cost

When the sunlight is better in spring, summer and autumn, the operating cost is higher than that of solar energy, but in rainy days and night, the thermal efficiency is much higher than that of solar electric auxiliary heating. On average throughout the year, the annual energy consumption of conventional solar auxiliary systems is much higher than air source heat pumps.

Heating types	Oil-burning boiler	Electric water heater	Solar water heater + Electric heating assistance	Gas-fired boiler	Air Source Heat Pump Water Heater
Energy used	Light diesel oil	Electricity	Sunshine + Electricity	Natural gas	Air+Electricity
Environmental protection index	Serious Pollution	No Pollution	No Pollution	Pollution	No Pollution
Safety	Extremely Dangerous	Dangerous	Dangerous	Extremely Dangerous	Safe
Service life	10 years	8 years	10 years	5 years	15 years
Installation requirement	Limited	Free	Limited	Free	Free
Energy heat performance	10200kcal/kg	860kcal/kg	860kcal/kg	8600kcal/m3	860kcal/kg
COP	85%	95%	95%	75%	380%
Fuel price	US \$0.96/kg	US \$0.125/kwh	US \$0.125/kwh	US \$0.74/m3	US \$0.125/kwh
Fuel quantity/day	46kg	489kwh	489kwh	62m3	122kwh
Cost/day	US \$44.1	US \$61.1	US \$61.1	US \$46.0	US \$15.2
Cost/Year	US \$16,097	US \$22,302	US \$6,110	US \$16,790	US \$5,548
Maintenance fee	US \$1,548	US \$323	US \$161	US \$323	US \$0
Total cost/Year	US \$17,645	US \$22,624	US \$6,271	US \$17,113	US \$5,548
Cost saving/year	US \$12,097	US \$17,076	US \$723	US \$11,565	/
Cost saving/10 years	US \$120,969	US \$170,761	Us \$7,233	US \$115,646	/

R290 HIGH TEMPERATURE
AIR SOURCE HEAT PUMP

Nulite Be Your Right



Nulite Are Supplying New Renewable Energy-Based Air Source Heat Pump Solutions

Multifunctional Connection



TS: Thermostat Switch
E1: DHW Auxiliary Electric Heater
G1: DHW-AC Convert Three-Way Valve
G2: Season Convert Three-Way Valve

G3: Solar Three-Way Valve
C1: Main Water pump
C2: AC Auxiliary Water Pump

C3: DHW Axillary Water Pump
C4: DHW Pipeline Crculating Water Pump
C5: Indoor Circulating Water Pump



Controller Panel



The Reasons For Choosing Nulite Heat Pump Water Heaters

ECO-FRIENDLY



Lower Emissions

R290 differs from other refrigerant gases such as R32 in that it has a very low Global Warming Potential(GWP).

HIGHLY EFFICIENT



Excellent Efficiency

Due to its thermodynamic properties the energy efficiency of this type of refrigerant gas is excellent, up to 34% higher than R32.

HIGH TEMPERATURE



Compatible With Existing Units

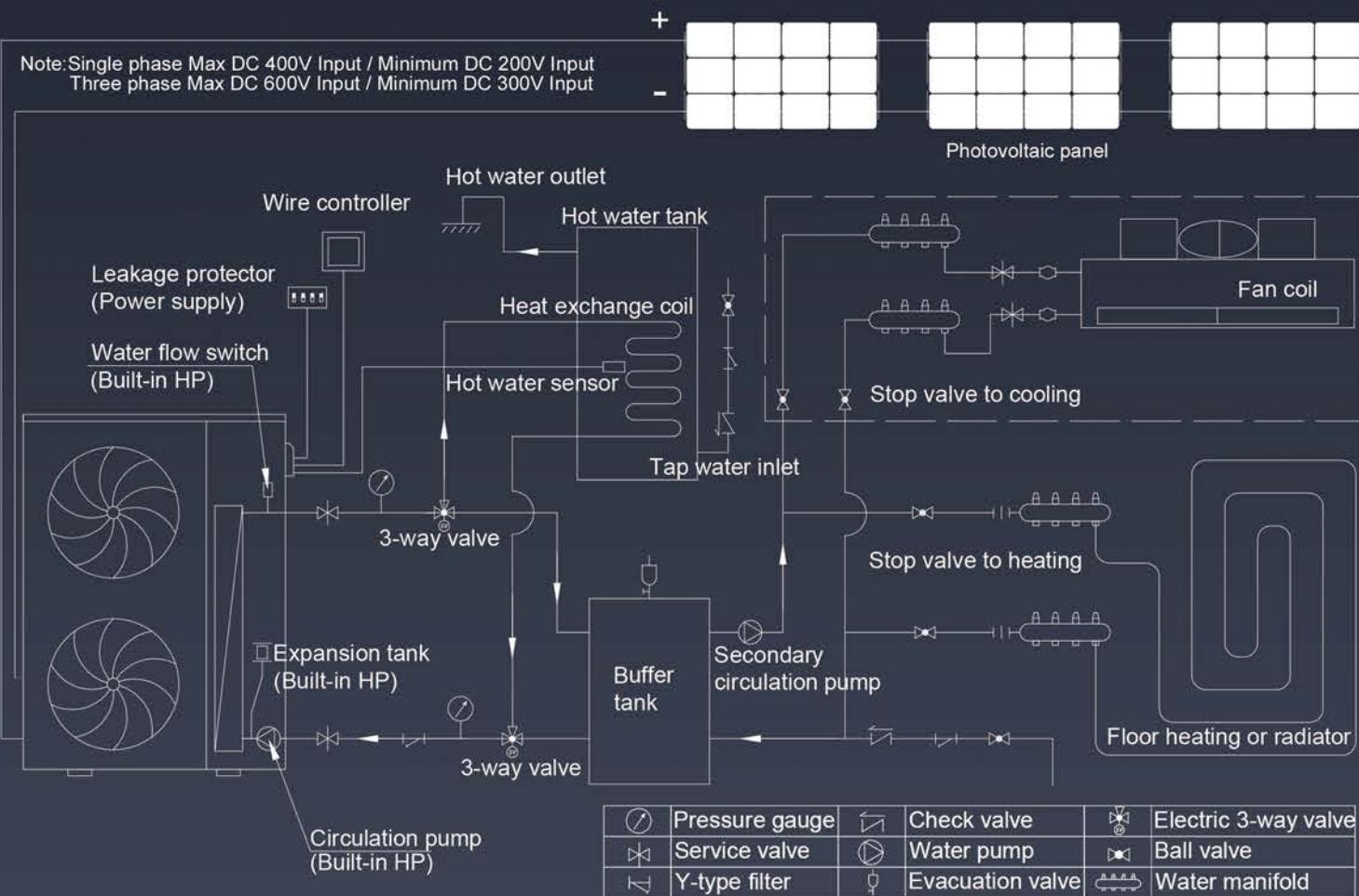
Flamingo R290 Series is ideal for replacing less efficient systems due to the high temperature of its water supply. It is compatible with radiators and does not require a large accumulation volume of domestic hot water.

Advantages:

- ★ Low global warming potential (GWP) of , making it a more sustainable and environmentally friendly option compared to other refrigerant gases.
- ★ Excellent energy efficiency, as it requires less energy to reach and maintain the desired temperature.
- ★ Contains no chlorine or fluorine, making it less harmful to the ozone layer.
- ★ No damages due to its high purity.
- ★ Compatibility with existing equipment.

FEATURE

- | | | |
|---------------------------------|---|------------------------------------|
| 01、WI-FI function | 04、With Linked switch signal connection | 07、Bulit-in 3KW electric heater |
| 02、Five Function modes | 05、3 ways valve signal connection | 08、Bulit-in expansion tank |
| 03、With RS485 signal connection | 06、Bulit-in water pump | 09、R290 EVI DC inverter compressor |

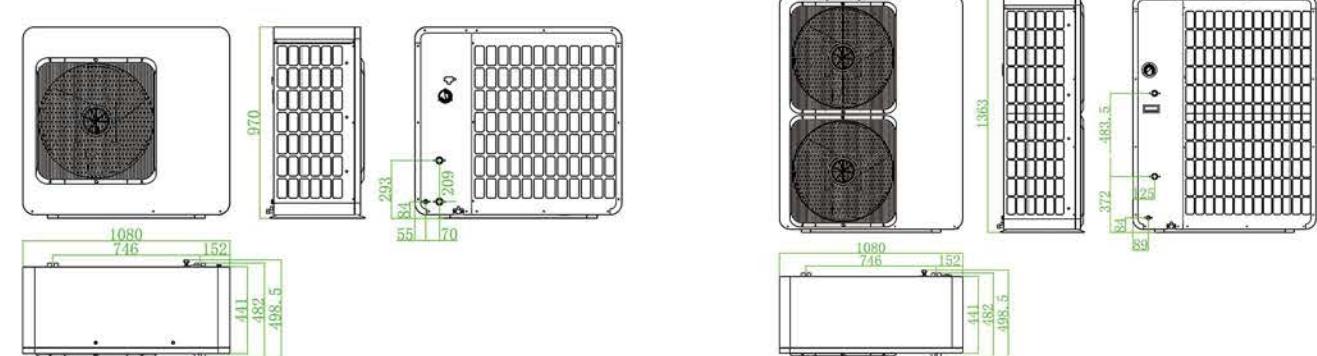


EVI DC INVERTER HEAT PUMP

R290 is the most sustainable refrigerant and possibly your best option when it comes to purchasing a commercial refrigerant for your business.



Dc Inverter Heat Pump	NL-FLM30-100II/R290	NL-FLM30-130II/R290	NL-FLM50-160II/R290	NL-FLM50-190II/R290
Heating capacity (A7C/W35C)	W	10000	12800	16000
Input power (A7C/W35C)	W	2410	2970	3750
DHW capacity (A7C/W55C)	W	9500	11300	15500
Input power (A7C/W55C)	W	3150	3600	5000
Cooling capacity (A35C/W18C)	W	10000	11000	14000
Input power (A35C/W18C)	W	2950	3600	4260
Voltage	V/Hz	220V - 240V - Inverter - 1N	380V - 415V - Inverter - 3N	
Rated water temperature	°C		DHW: 55°C / Heating: 45°C / Cooling: 12°C	
Max water temperature	°C		75°C ~ 80°C	
Rated water flow	m³/h	1.7	2.1	2.7
Refrigeration	/	R290	R290	R290
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/		Heating / Cooling / DHW / Heating+DHW / Cooling+DHW	
Compressor	Form	/ Double-rotor type	Double-rotor type	Double-rotor type
Quantity	/	1	1	1
Brand	/		Panasonic Full Inverter +EVI Compressor	
Net weight	Kg	105	112	145
Nosie level	dB(A)	≤51	≤51	≤53
Fan	Form	/	Full DC fan motor (low noise)	
Fan motor	PCS	1	1	2
Water heat exchanger	/	Sweden SWEP Plate heat exchanger (Main road) + Denmark Danfoss Plate heat exchanger(EVI road)		
Auxiliary Element	built-in	French	3KW	3KW
Circulation pump	built-in	SHIMGE	Inverter Water Pump (water head 12 meters)	
Expansion tank	built-in	L	5	5
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)
Inlet pipe diameter	mm	DN25	DN25	DN25
Outlet pipe diameter	mm	DN25	DN25	DN25
Net size	mm	1080x499x970	1120x510x1100	1080x499x1365
Packing size	mm			1120x510x1490
20"GP container loading	pcs	44	44	22
40"HQ container loading	pcs	92	92	46



Monoblock DC Inverter Air Source Heat Pump

The Piloteer of European Inverter 3 in 1 Heat Pump



- + WI-FI function
- + Heating/Cooling/DHW/Heating+DHW/Cooling+DHW
- + With RS485 signal connection
- + With Linked switch signal connection
- + 3 ways valve signal connection
- + Built-in water pump
- + Built-in 3KW electric heater
- + Built-in expansion tank
- + Brand new design
- + R32 dc inverter compressor
- + More multifunctional connection



► MONOBLOCK
R32/R290 HEAT PUMP

► MONOBLOCK
R32 HEAT PUMP

► MONOBLOCK
R410A HEAT PUMP



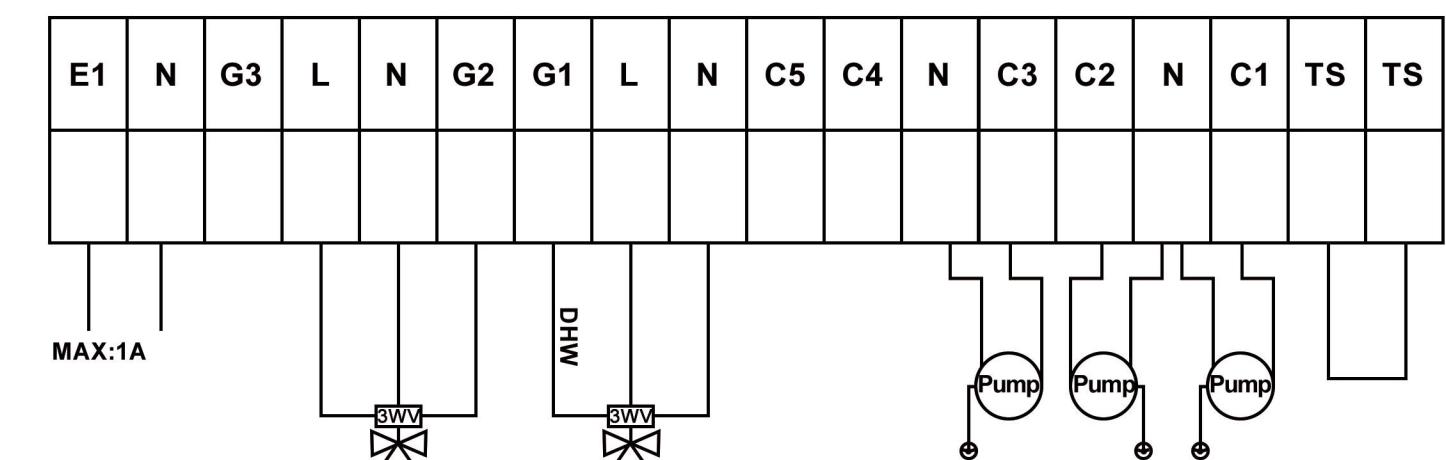
Multi-Language Controller



Controller Panel



Multifunctional Connection



TS:Thermostat Switch

E1:DHW Auxiliary Electric Heater

G1:DHW-AC Convert Three-Way Valve

G2:Season Convert Three-Way Valve

G3:Solar Three-Way Valve

C1:Main Water Pump

C2:AC Auxiliary Water Pump

C3:DHW Axillary Water Pump

C4:DHW Pipeline Circulating Water Pump

C5:Indoor Circulating Water Pump

Parameter



Model Name		NL-FLM30-95II/R32	NL-FLM40-150II/R32	NL-FLM50-200II/R32	
Rated heating capacity	KW	2.8~10	3.8~16	5.5~21	
Rated hot water capacity	KW	2.5~9.5	3.5~15.5	4.5~20.5	
Rated cooling capacity	KW	2.5~7.5	3.8~11	4.8~15	
Heating power consumption	KW	1~3.2	1.5~4.5	2~5.8	
Hot water power consumption	KW	1~3.2	1.5~4.5	2~5.8	
Cooling power consumption	KW	1~3.2	1.5~4.5	2~5.8	
Voltage	V/Hz	220V~1N~Inverter	220V~1N & 380V~3N~Inverter		
Rated water temperature	°C		DHW: 55°C / Heating: 45°C / Cooling: 12°C		
Rated water flow	m³/h	1.6	2.1	2.8	
Refrigeration	/	R32	R32	R32	
Rated of waterproof	/	IPX4	IPX4	IPX4	
Control mode	/	Heating / Cooling / DHW / Heating+DHW/ Cooling+DHW			
	Form	/	Double-rotor type	Double-rotor type	
Compressor	Quantity	/	1	1	
	Brand	/	Mitsubishi Full Inverter Compressor		
Net weight	Kg	100	110	140	
Nosie level	dB(A)	≤49	≤50	≤52	
Fan	Form	/	Full DC fan motor (low noise)		
Fan motor	PCS	1	1	2	
Water heat exchanger	/	Sweden SWEP / Denmark Danfoss / SanHua Plate heat exchanger			
Auxiliary Element	built-in	KW	3	3	
Circulation pump	built-in	SHIMGE	Inverter Water Pump		
Expansion tank	built-in	L	5	5	
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)	
Inlet pipe diameter		DN25	DN25	DN25	
Outlet pipe diameter		DN25	DN25	DN25	
Net size	mm	1050x499x970		1050x499x1365	
Packing size	mm	1090x510x1100		1090x510x1490	
20"GP container loading	pcs	44	44	22	
40"HQ container loading	pcs	92	92	46	

Parameter



Model Name		NL-FLM60-220II/R32	NL-FLM80-300II/R32	NL-FLM100-400II/R32
Rated heating capacity	KW	5.6~23	7.5~30	9.5~40
Rated hot water capacity	KW	5.2~22	7.0~28	9.0~38
Rated cooling capacity	KW	5.6~16	6.5~22	8.0~28
Heating power consumption	KW	2.5~6.9	3.5~9	4.5~11
Hot water power consumption	KW	2.5~6.9	3.5~9	4.5~11
Cooling power consumption	KW	2.5~6.9	3.5~9	4.5~11
Voltage	V/Hz	220V~1N & 380V~3N~Inverter	380V ~ Inverter ~ 3N	
Rated water temperature	°C		DHW: 55°C / Heating: 45°C / Cooling: 12°C	
Rated water flow	m³/h	3.3	5.0	6.0
Refrigeration	/	R32	R32	R32
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/	Heating / Cooling / DHW / Heating+DHW/ Cooling+DHW		
	Form	/	Double-rotor type	Double-rotor type
Compressor	Quantity	/	1	1
	Brand	/	Mitsubishi Full Inverter Compressor	
Net weight	Kg	145	175	190
Nosie level	dB(A)	≤53	≤58	≤59
Fan	Form	/	Full DC fan motor (low noise)	
Fan motor	PCS	2	2	2
Water heat exchanger	/	Sweden SWEP / Denmark Danfoss / SanHua Plate heat exchanger		
Auxiliary Element	built-in	KW	3	3
Circulation pump	built-in	SHIMGE	Inverter Water Pump	/
Expansion tank	built-in	L	5	8
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)
Inlet pipe diameter		DN25	DN40	DN40
Outlet pipe diameter		DN25	DN40	DN40
Net size	mm	1050x499x1365		1187x516x1585
Packing size	mm	1090x510x1490		1220X545X1700
20"GP container loading	pcs	22	Optional	Optional
40"HQ container loading	pcs	46	Optional	Optional

Parameter

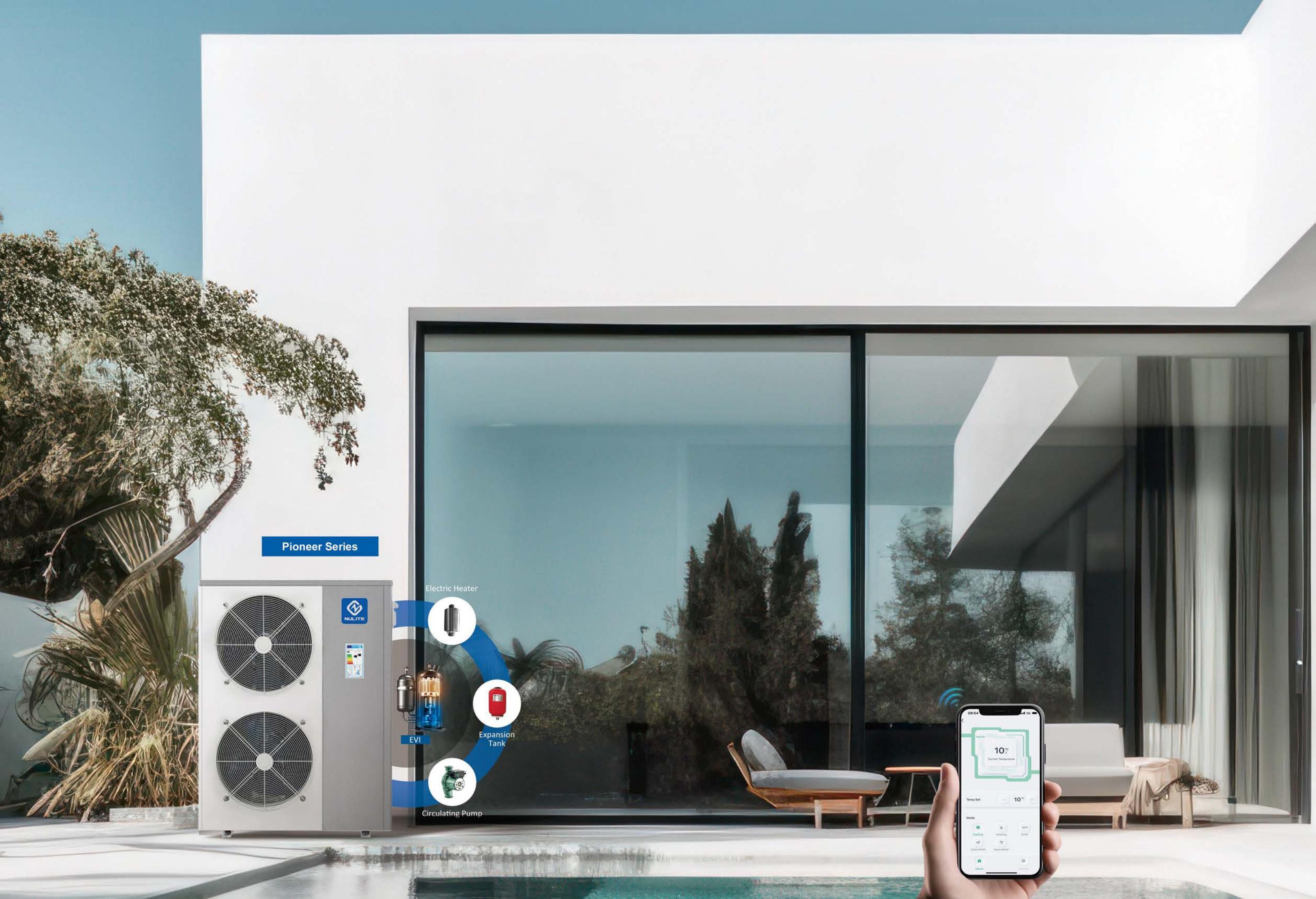


Model Name		NL-BKDX30-95II/R	NL-BKDX40-150II/R	NL-BKDX50-200II/R
Rated heating capacity	KW	2.8~10	3.8~15.5	4.5~20
Rated hot water capacity	KW	2.5~9.5	3.5~15	4.0~19.4
Rated cooling capacity	KW	2.5~7.5	3.8~10	4.5~14
Heating power consumption	KW	1~3	1.5~4.5	2~5.5
Hot water power consumption	KW	1~3	1.5~4.5	2~5.5
Cooling power consumption	KW	1~3	1.5~4.5	2~5.5
Voltage	V/Hz	220V-240V - Inverter- 1N	220V-240V - Inverter- 1N / 380V-415V ~ Inverter ~ 3N	
Rated water temperature	°C		Hot water: 55C / heating:45C / cooling:12C	
Rated water flow	m³/h	1.6	2.1	2.8
Refrigeration	/	R410	R410a	R410a
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/	Heating,Cooling,DHW, Heating+DHW,Cooling+DHW		
Form	/	Double-rotor type	Double-rotor type	Double-rotor type
Compressor	Quantity	/	1	1
	Brand	/	Mitsubishi	Mitsubishi
	Net size	mm	1050*470*970	1050*470*970
Outdoor unit	Weight	Kg	100	110
	Nosie level	dB(A)	≤50	≤50
Heat exchanger	/	Sweden SWEP Plate heat exchanger		
Fan	Form		Full DC fan motor	
Auxiliary Element	built-in	KW	3	3
Circulation pump	built-in	/	√	√
Expansion tank	built-in	L	5	5
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)
Pipe diameter		DN25	DN25	DN25
Packing size	mm	1090*490*1100	1090*490*1100	1090*490*1480
20" container loading	pcs	44	44	22
40" container loading	pcs	88	88	44
WI-FI function	/	√	√	√
ErP Energy class	/	35°C A+++ / 55°C A++	35°C A+++ / 55°C A+	35°C A+++ / 55°C A++

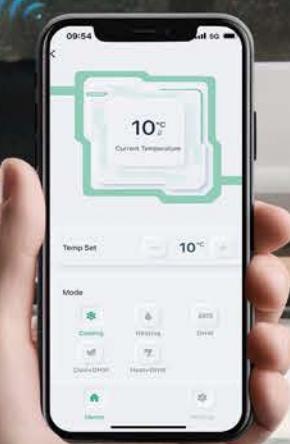
Parameter



Model Name		NL-BKDX60-220II/R	NL-BKDX80-300II/R	NL-BKDX100-400II/R
Rated heating capacity	KW	5.6~22	7.2~30	9~40
Rated hot water capacity	KW	5.2~21.5	7.0~29.5	8~39
Rated cooling capacity	KW	5.6~16	7.0~23	9~30
Heating power consumption	KW	2.5~6.6	3.2~8.3	4~10
Hot water power consumption	KW	2.5~6.6	3.2~8.3	4~10
Cooling power consumption	KW	2.5~6.6	3.2~8.3	4~10
Voltage	V/Hz	220V~1N / 380V~3N~Inverter	380V~415V ~ Inverter ~ 3N	
Rated water temperature	°C		Hot water: 55C / heating:45C / cooling:12C	
Rated water flow	m³/h	3.3	5	6
Refrigeration	/	R410a	R410a	R410a
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/	Heating,Cooling,DHW, Heating+DHW,Cooling+DHW		
Form	/	Double-rotor type	Double-rotor type	Double-rotor type
Compressor	Quantity	/	1	1
	Brand	/	Mitsubishi	Mitsubishi
	Net size	mm	1050*470*1345	1161*476*1550
Outdoor unit	Weight	Kg	145	170
	Nosie level	dB(A)	≤52	≤58
Heat exchanger	/	Sweden SWEP Plate heat exchanger		
Fan	Form		Full DC fan motor	
Auxiliary Element	built-in	KW	3	/
Circulation pump	built-in	/	√	/
Expansion tank	built-in	L	5	8
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)
Pipe diameter		DN25	DN32	DN32
Packing size	mm	1090*490*1480	1200*545*1675	1200*545*1675
20" container loading	pcs	22	16	16
40" container loading	pcs	44	36	36
WI-FI function	/	√	√	√
ErP Energy class	/		35°C A+++ / 55°C A++	/



Pioneer Series



Parameter



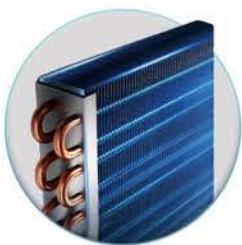
Model Name		NL-BKDX30-95II/R32	NL-BKDX40-150II/R32	NL-BKDX50-200II/R32	
Rated heating capacity	KW	2.8~10	3.8~16	5.5~21	
Rated hot water capacity	KW	2.5~9.5	3.5~15.5	4.5~20	
Rated cooling capacity	KW	2.5~7.5	3.8~11	4.8~14.5	
Heating power consumption	KW	1~3.2	1.5~5.0	2~5.5	
Hot water power consumption	KW	1~3.2	1.5~5.0	2~5.5	
Cooling power consumption	KW	1~3.2	1.5~5.0	2~5.5	
Voltage	V/Hz	220V-240V - Inverter- 1N	220V-240V - Inverter- 1N & 380V-415V ~ Inverter ~ 3N	380V-415V ~ Inverter ~ 3N	
Rated heating water temperature	°C		DHW: 55°C / Heating: 45°C / Cooling: 12°C	DHW: 55°C / Heating: 45°C / Cooling: 12°C	
Rated water flow	m³/h	1.7	2.7	3.5	
Refrigeration	/	R32	R32	R32	
Rated of waterproof	/	IPX4	IPX4	IPX4	
Control mode	/	Heating / Cooling / DHW / Heating+DHW/ Cooling+DHW			
Form	/	Double-rotor type	Double-rotor type	Double-rotor type	
Compressor	Quantity	/	1	1	
	Brand	/	Japanese Panasonic brand with Inverter + EVI technology		
Net size	mm	1050*460*838	1050*460*1343	1050*460*1343	
Outdoor unit	Weight	Kg	100	130	
	Nosie level	dB(A)	≤49	≤50	
			≤52		
Heat exchanger	/	Sweden SWEP Plate heat exchanger			
Fan	Form	/	Full DC fan motor		
Fan motor	PCS	1	2	2	
Auxiliary Element	built-in	KW	3	3	
Circulation pump	built-in	Wilo	RS-15/6	RS-25/8	
Expansion tank	built-in	L	2	5	
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	(-25°C -- 43°C)	
Pipe diameter		DN25	DN25	DN25	
Packing size	mm	1100*480*1000	1100*480*1500	1100*480*1500	
ErP Energy class	/	35°C A+++/ 55°C A++	35°C A+++/ 55°C A++	35°C A+++/ 55°C A++	
20"GP container loading	pcs	48	24	24	
40"HQ container loading	pcs	96	48	48	

Parameter



Model Name		NL-BKDX80-300II/R32	NL-BKDX100-400II/R32	
Rated heating capacity	KW	7.2~31	9~40	
Rated hot water capacity	KW	7.0~30.5	8~39	
Rated cooling capacity	KW	7.0~23.5	9~30	
Heating power consumption	KW	3.2~8.4	4~10	
Hot water power consumption	KW	3.2~8.4	4~10	
Cooling power consumption	KW	3.2~8.4	4~10	
Voltage	V/Hz		380V-415V ~ Inverter ~ 3N	
Rated heating water temperature	°C		DHW: 55°C / Heating: 45°C / Cooling: 12°C	
Rated water flow	m³/h	6	7	
Refrigeration	/	R32	R32	
Rated of waterproof	/	IPX4	IPX4	
Control mode	/	Heating / Cooling / DHW / Heating+DHW/ Cooling+DHW		
Form	/	Double-rotor type	Double-rotor type	
Compressor	Quantity	/	1	
	Brand	/	Japanese Panasonic brand with Inverter + EVI technology	
Net size	mm	1215*490*1558	1215*490*1558	
Outdoor unit	Weight	Kg	180	
	Nosie level	dB(A)	≤58	
			≤59	
Heat exchanger	/	Sweden SWEP Plate heat exchanger		
Fan	Form	/	Full DC fan motor	
Fan motor	PCS	2	2	
Auxiliary Element	built-in	KW	/	
Circulation pump	built-in	Wilo	/	
Expansion tank	built-in	L	5	
Ambient temperature	°C	(-25°C -- 43°C)	(-25°C -- 43°C)	
Pipe diameter		DN40	DN40	
Packing size	mm	1295*520*1720	1295*520*1720	
ErP Energy class	/	35°C A+++/ 55°C A++	/	
20"GP container loading	pcs	16	16	
40"HQ container loading	pcs	36	36	

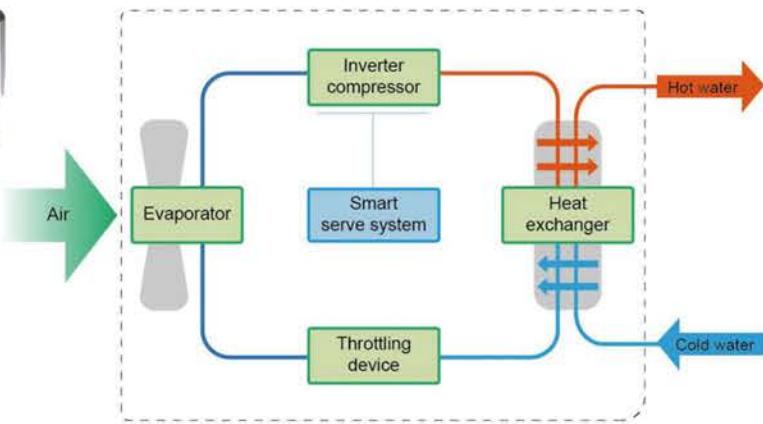
Compressor



DC Inverter Technology



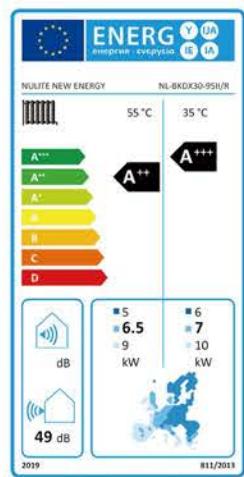
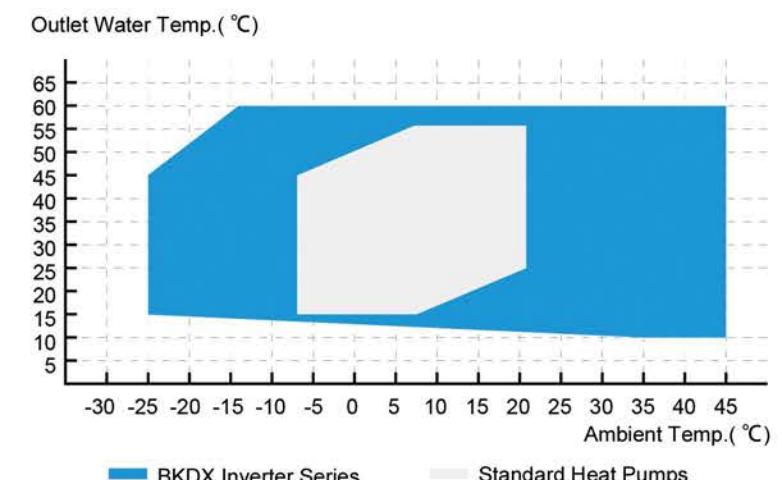
Adopting Mitsubishi Inverter Dedicated Compressor. Which Designed For The Low Temperature Operation Specially,-25°C Running Stably



Eco-Friendly Application



Multi-Protection, Long Service Life



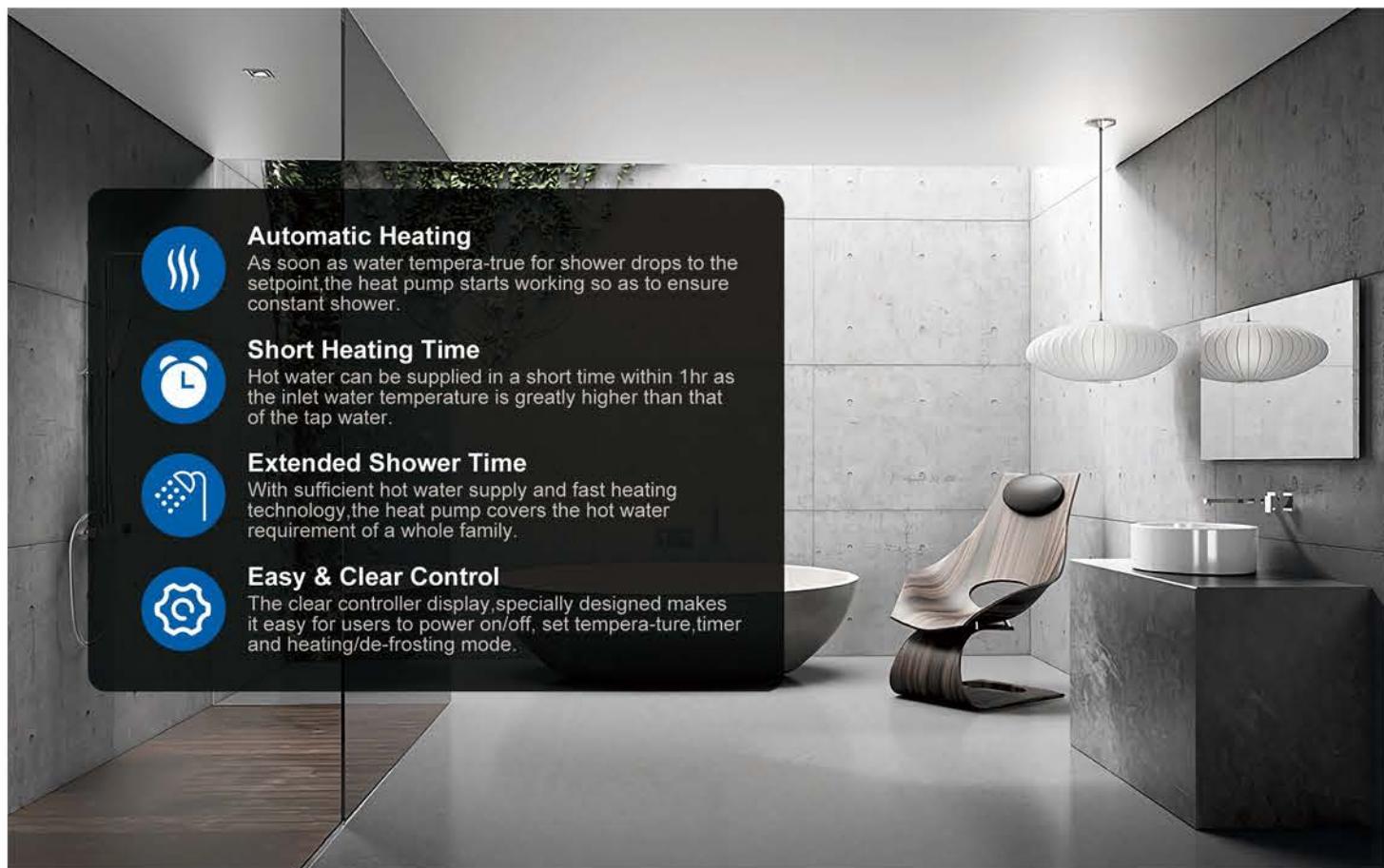
Water Temp.up to 60°C,75%energy saving

Thanks to dc inverter technology,BKDX inverter series features a wide operating temperature.It means they can reach high temperature 60°C even in cold climate ranging from -25°C to 43°C,and can work safety and high efficiency.

High COP

Adopting R32 refrigerant and circulating heating method,BKDX Inverter Series heat pump is able to keep its energy efficiency high.

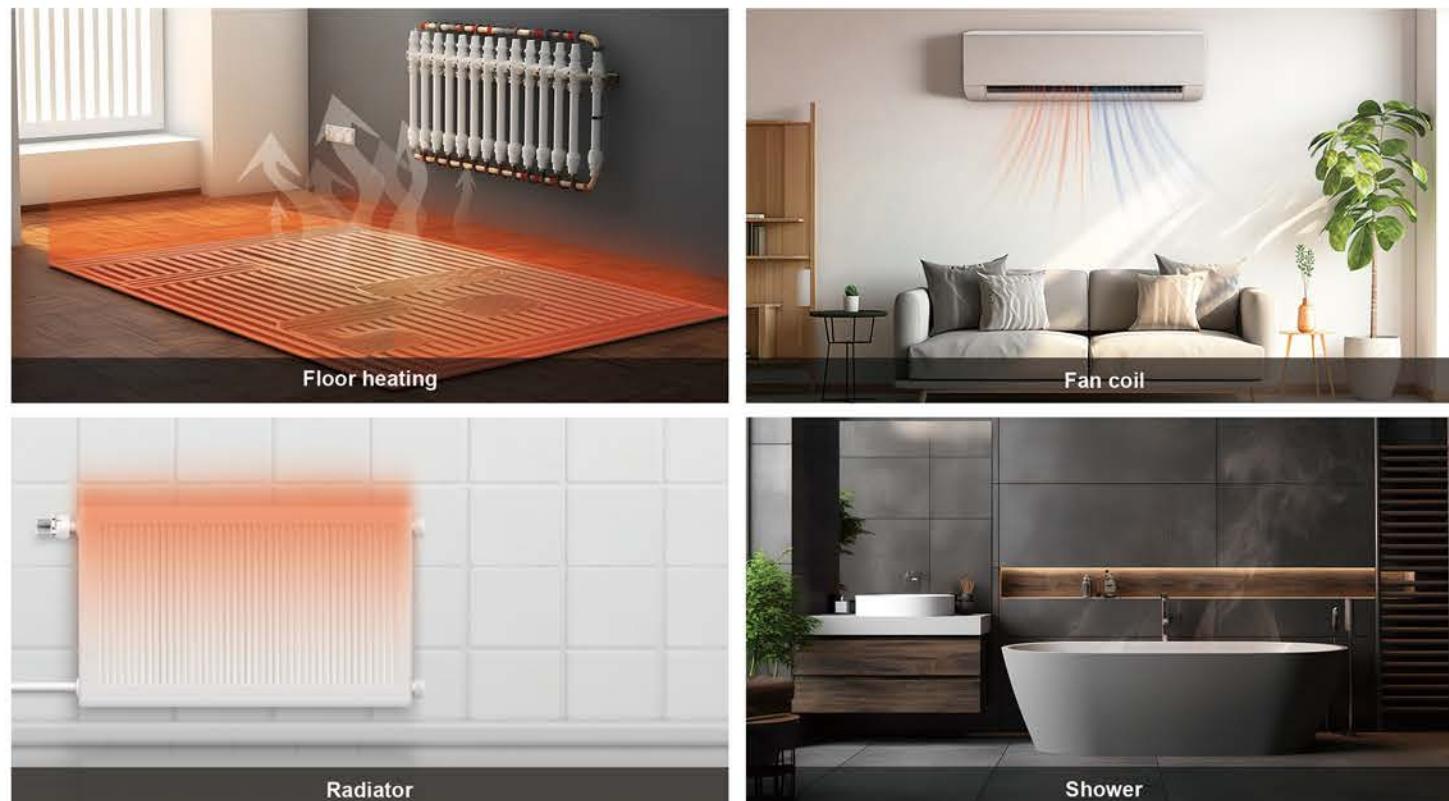
Provide You Trouble-free Shower



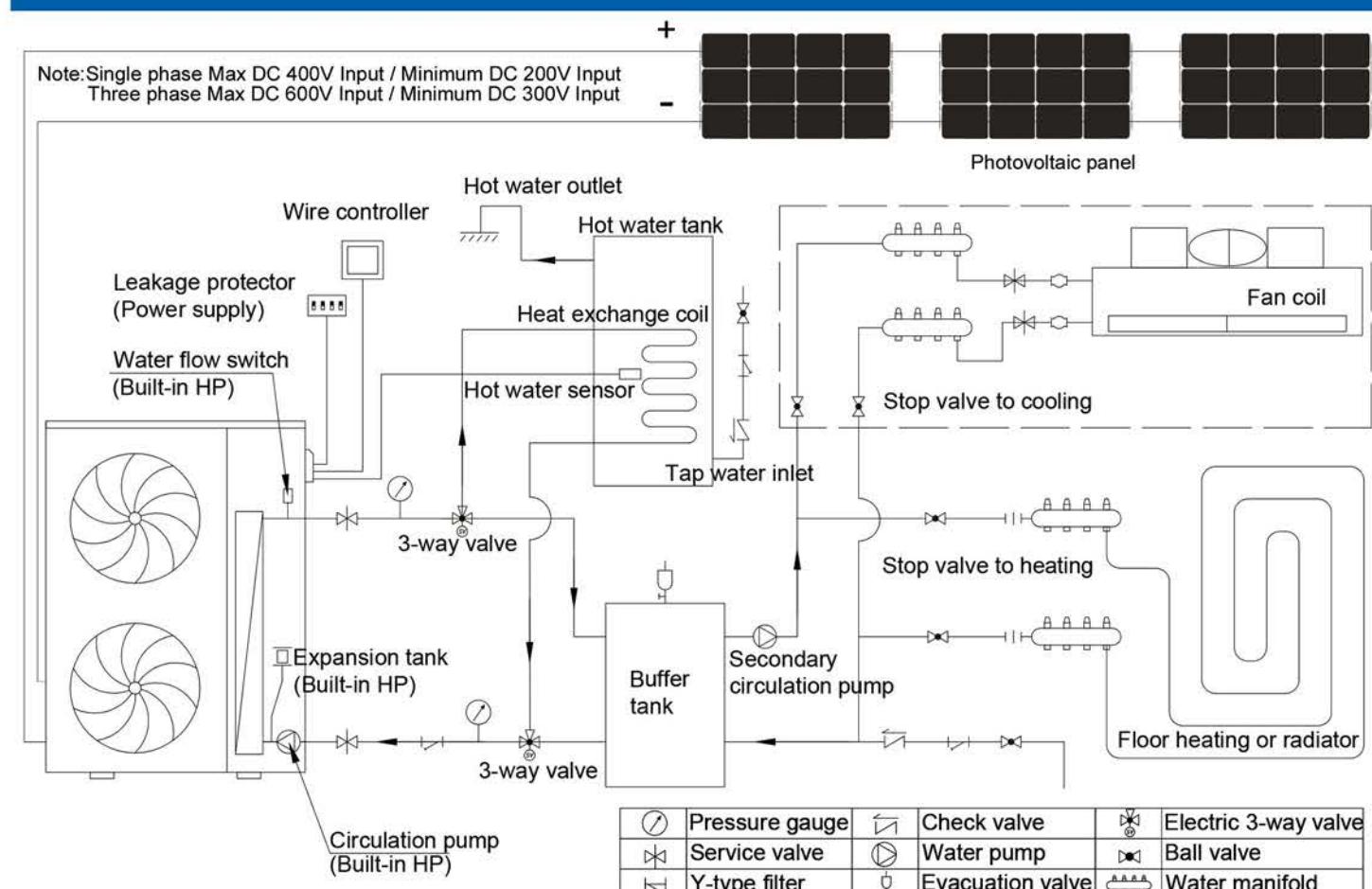
Advanced Performance

<p>Water Flow Switch Protection When water inlet volume is low, the unit stops to protect the system. When the water volume recovers, the unit starts working again.</p>	<p>High/Low Pressure Protection High/Low pressure switches will switch off the heat pump automatically to protect the whole system when the pressure is over high/low.</p>
<p>Antifreezing Protection When the unit is standby and water inlet temp. is lower than 4°C but higher than 2°C, the water pump starts up to protect the system.</p>	<p>High Discharging Temp. Protection When the compressor discharging temp. is higher than 110°C, the unit will not work until the temperature is lower than 85°C.</p>
<p>Compressor Overload Protection When the compressor is working overload, the unit will stop working to protect the whole system.</p>	<p>Smart Control The full touch HD display specially designed makes it easy for users to set the heat pump. Multi-language will fit for different markets.</p>

Application



Production installation



R32/R410a Split Type DC Inverter Heat Pump

The Piloteer of European Inverter 3 in 1 Heat Pump



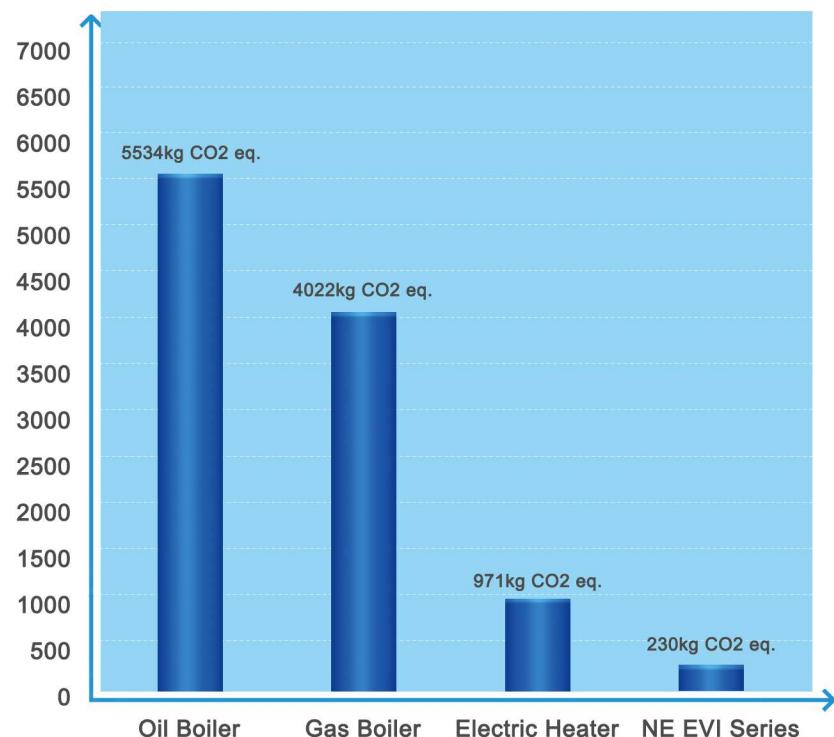
- + Multi-language controller
- + WI-FI function
- + Heating/Cooling/DHW/Heating+DHW/Cooling+DHW
- + With RS485 signal connection
- + With Linked switch signal connection
- + 3 ways valve signal connection
- + Built-in inverter water pump
- + Built-in 3KW electric heater
- + Built-in expansion tank
- + More multifunctional connection



Split DC Inverter Heat Pump

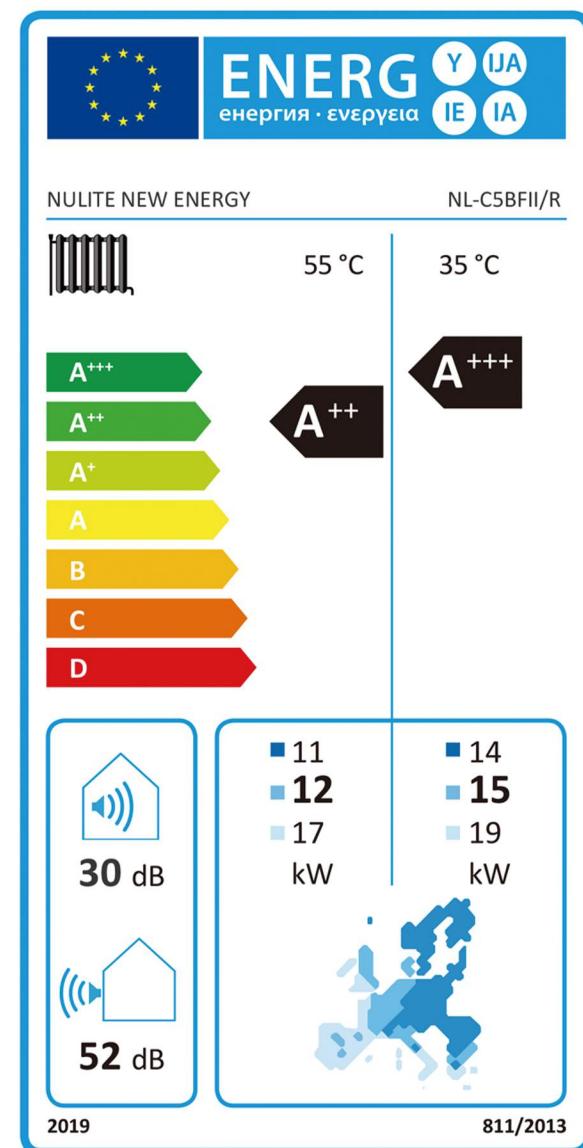
- ① R32/R410a refrigerant, with Mitsubishi 10Hz~120Hz double rotor DC Inverter compressor, lower noise but more efficient.
- ② Split system with better heating conditions. Well defrosting function and high working stability.
- ③ Simple controlling system for using.
- ④ Intelligent EEV achieve higher working performance. Standby after the temperature reaches the setting value, 80%+energy saving.
- ⑤ With inverter technology, the unit could be started with lower current without big impact on the power grid which can reduce the indoor electrical interference being used. Service life could be extended 15 years.

Co2 Emissions For Various Heating Systems



Annual GHG emissions (kg CO2eq.) - Heating only(Victoria, Canada)		
Fuel	Cop	CO2 Emission from Building 1500 ft2 (140m2)
Electricity	0.95	971
Gas	0.84	4022
Oil	0.84	5534

Data provided by CGC



Product Advantages



Multi-Language Controller



Controller Panel



Creative And Detail-oriented



Adapting intelligent temperature compensation technology, the unit can adjust the setting temperature according to the ambient temperature to provide hot water with comfortable temperature for you.



With strong-countercurrent design, the patented C&S heat exchanger is conducive to improving the efficiency and reliability of the unit.



Inverter compressor ensures the unit operate safely at low ambient temperature with higher efficiency and lower noise.



The use of stepless speed fan motor can adjust the fan speed according to different working conditions and broaden the application range of the unit.



conditions and broaden the application range of the unit. stronger anti-corrosion feature and performs higher efficiency.



The world famous brand electronic expansion valve controls the volume of the refrigerant accurately and reduces energy consumption.

Production Installation



Parameter



NL-C3BFII/R, NL-C4BFII/R



NL-C5BFII/R

Model Name		NL-C3BFII/R	NL-C4BFII/R	NL-C5BFII/R
Rated heating capacity	KW	2.8~10	3.8~15.5	4.5~20
Rated hot water capacity	KW	2.5~9.5	3.5~15	4.0~19.5
Rated cooling capacity	KW	2.5~7.5	3.8~11	4.5~14.5
Heating power input	KW	1~3.2	1.5~4.5	2~5.7
Hot water power input	KW	1~3.2	1.5~4.5	2~5.7
Cooling power input	KW	1~3.2	1.5~4.5	2~5.7
Voltage	V/Hz	220V~Inverter~1PH	220V~1PH/380V~3PH~Inverter	
Rated output water temperature	°C		Hot water 55°C / Heating 45°C / Cooling 12°C	
Rated water flow	m³/h	1.6	2.1	2.8
Refrigeration	/	R32/R410a	R32/R410a	R32/R410a
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/	Microcomputer central processor (Touch controller)		
Compressor	Form	/	Double-rotor type	Double-rotor type
Quantity	PCS	1	1	1
Brand	/	Mitsubishi Inverter	Mitsubishi Inverter	Mitsubishi Inverter
Outdoor unit	Net size	mm	1050*470*970	1050*470*970
	Weight	Kg	88	94
	Nosie level	dB(A)	≤49	≤50
Fan	Form	/	Brushless DC motor	Brushless DC motor
	Auxiliary Element	KW	3	3
	Heat exchanger	/	SWEP Plate heat exchanger	SWEP Plate heat exchanger
Indoor unit	Build-in water pump	/	√	√
	Expansion tank	L	5	5
	Weight	Kg	43	44
	Net size	mm	500*300*774	500*300*774
	Ambient temperature	°C	(-25°C ~ 43°C)	(-25°C ~ 43°C)
	Inlet / Outlet pipe diameter	/	DN25	DN25
	Loading quantity of 20GP	PCS	48	48
	Loading quantity of 40HQ	PCS	96	48

DC Inverter Household All In One Heat Pump



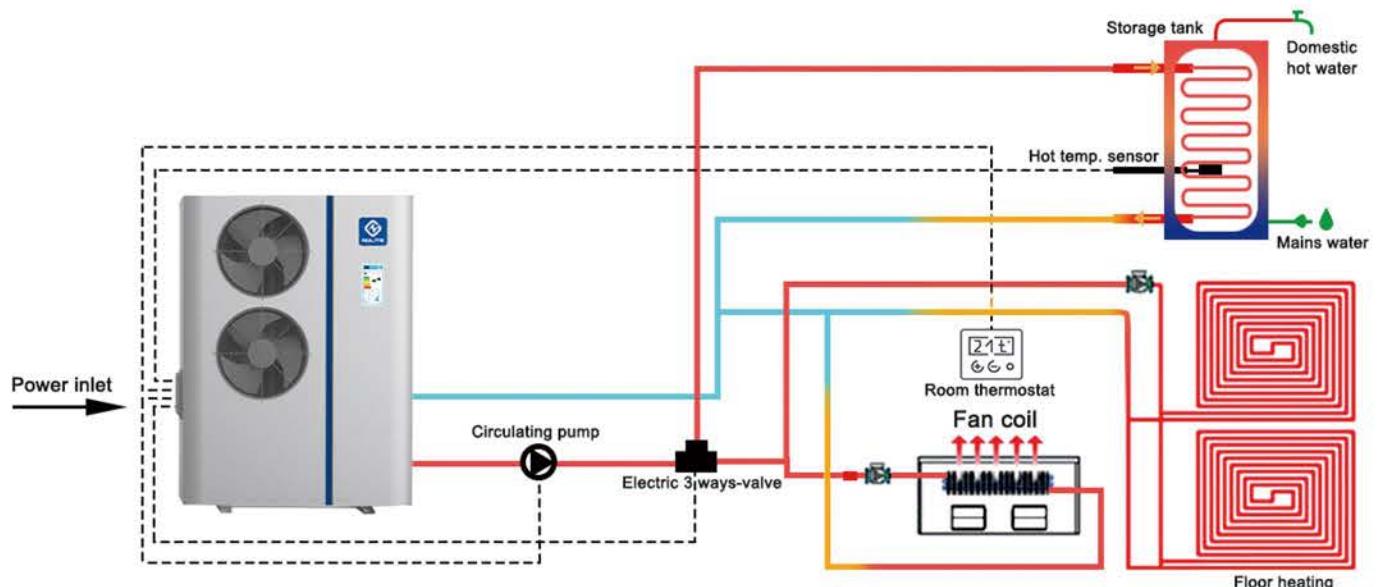
- + 2KW heater build in.
- + R32 new compressor.
- + WI-FI function.
- + Heating,Cooling,DHW functions.
- + Linked switch signal connection.
- + RS485 signal connection.
- + 3-way valves signal connection.



Mitsubishi DC Inverter Compressor



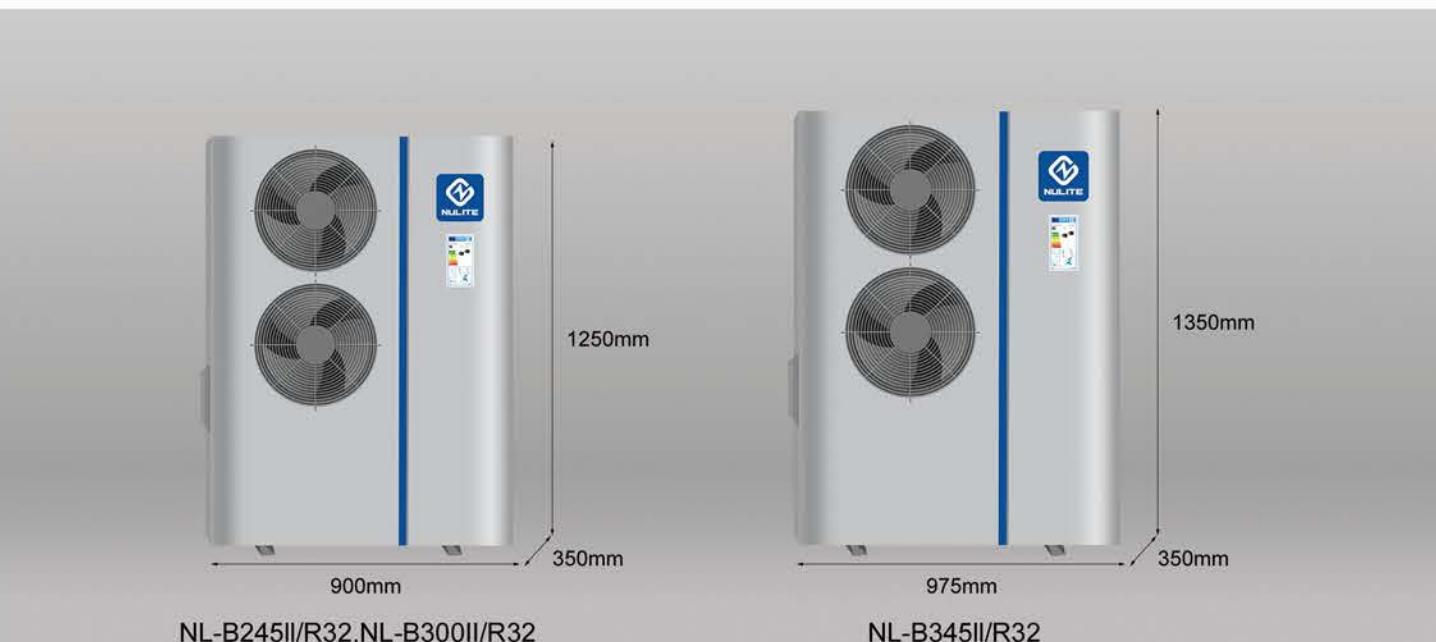
Production Installation



Application



Parameter



Model Name		NL-B245II/R32	NL-B300II/R32	NL-B345II/R32
Rated heating capacity	KW	3~8.5	3.5~9.5	5~12.5
Rated hot water capacity	KW	3~8	3.5~9.5	5~12
Rated cooling capacity	KW	2.5~5	2.8~5.3	4~7
Heating power consumption	KW	1~2.5	1.15~2.65	1~4
Hot water power consumption	KW	1~2.5	1.15~2.6	1~4
Cooling power consumption	KW	1~2.2	1.15~2.35	1~3.5
Voltage	V/Hz	220V~240V~Inverter~1N	220V~240V~Inverter~1N	220V~240V~Inverter~1N
Rated heating water temperature	°C	Hot water: 55°C / Heating:45°C / Cooling:12°C		
Rated water flow	m³/h	1.5	1.5	1.8
Rated of waterproof	/	IPX4	IPX4	IPX4
Control mode	/	Heating,Cooling,DHW, Heating+DHW,Cooling+DHW		
Motherboard control signal output	/	Linked switch, RS485, Electric 3-way valve, Water pump.		
Refrigeration and volume	/	R32/1300g	R32/1500g	R32/1800g
Compressor	Form	/	Double-rotor type	Double-rotor type
	Quantity	/	1	1
	Brand	/	Mitsubishi Inverter	Mitsubishi Inverter
Outdoor unit	Net size	mm	900*350*1250	900*350*1250
	Weight	Kg	90	92
	Nosie level	dB(A)	≤50	≤50
Fan	Form	/	Smart fan motor	Smart fan motor
	Operation ambient temperature	°C	(-25°C - 43°C)	(-25°C - 43°C)
	Water tank heat exchanger	Liter	70	70
	Water tank working pressure	MPa	≤0.8	≤0.8
	Inlet pipe diameter	mm	DN20	DN20
	Outlet pipe diameter	mm	DN20	DN20
	Packing size	mm	1020*470*1500	1020*470*1500
	20" container loading	PCS	24	24
	40" container loading	PCS	50	50
	Auxiliary Element built-in	KW	2	2
	WI-FI function	/	√	√
	ErP Energy class	/	35°C A++ / 55°C A+	35°C A+++ / 55°C A++
				35°C A+++ / 55°C A++

Geothermal Water Source DC Inverter Heat Pump



- + Multi-language controller
- + WI-FI function
- + Heating/Cooling/DHW/Heating+DHW/Cooling+DHW
- + With RS485 signal connection
- + With Linked switch signal connection
- + 3 ways valve signal connection
- + Dual water sensors control
- + Brand new design
- + R32 dc inverter Mitsubishi compressor
- + R290 dc inverter Panasonic compressor
- + More multifunctional connection



Multi-language Controller



Product Advantage

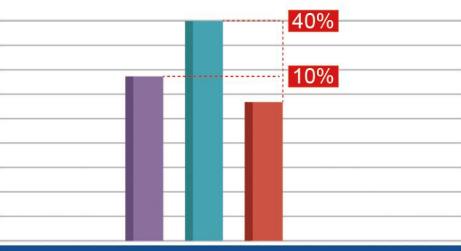
Flexible Installation

Nulite Water Cooled Package Unit is installed with small space without any indoor terminals. It's no necessity for users to build an equipment room for them.



Make the Best Use of Energy

Nulite Water Cooled Package Unit can make full use of cooling tower, ground source, solar panel or industrial waste heat. Unlike normal air conditioning devices, Water Cooled Package Unit is affected very little by climate change. It helps users to save energy as much as 40%.

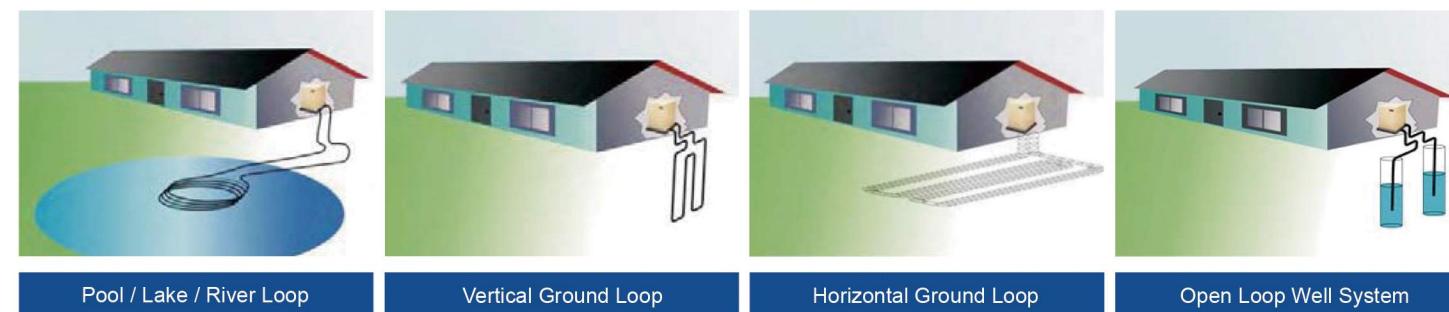


Separate Monitor, Separate Electricity Bills

The units are installed separately in every room with their own cooling/heating controller. Users can control the running of every unit separately which is convenient for them to calculate the electricity bill for each room.



Product Application



Installation diagram

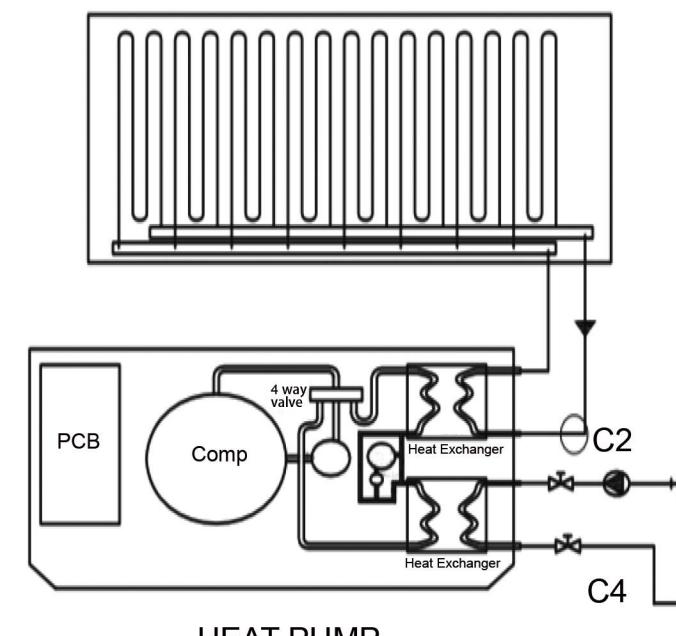
Nulite Water Source Heat Pump saves more energy than other heating/cooling solutions because it makes full use of free energy in the surrounding environment. In summer, it works with cooling tower for space cooling. While in winter, it uses the geothermal energy for space heating.

C2 Water source side water pump

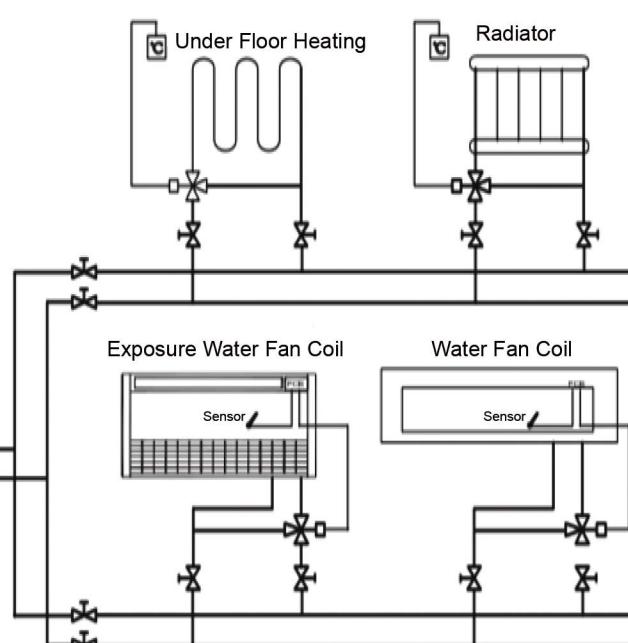
C4 Water pump for DHW and AC

C5 AC assistant water pump.

Water/Geo Source



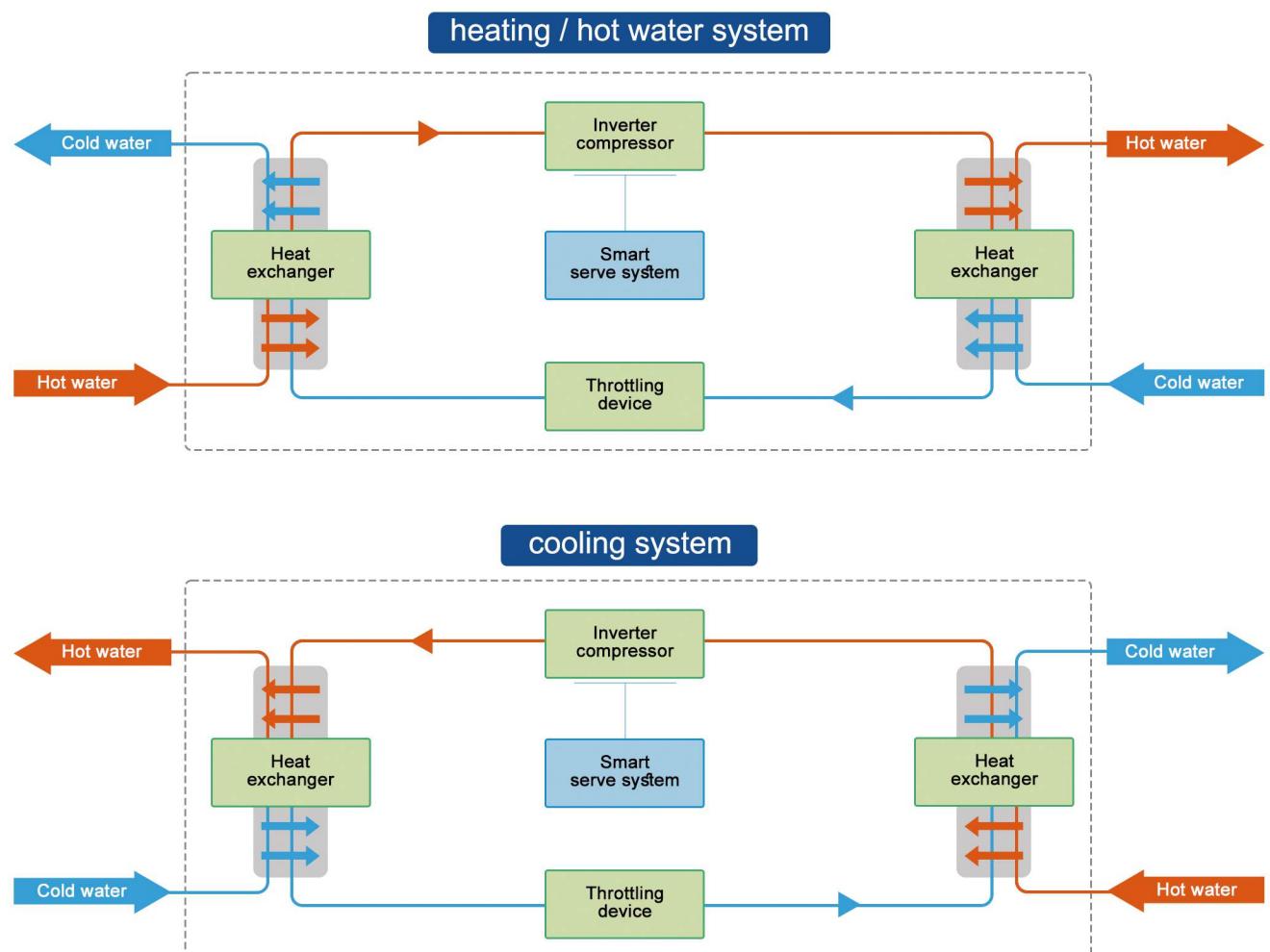
Application



Product Application



Working Principle



Parameter

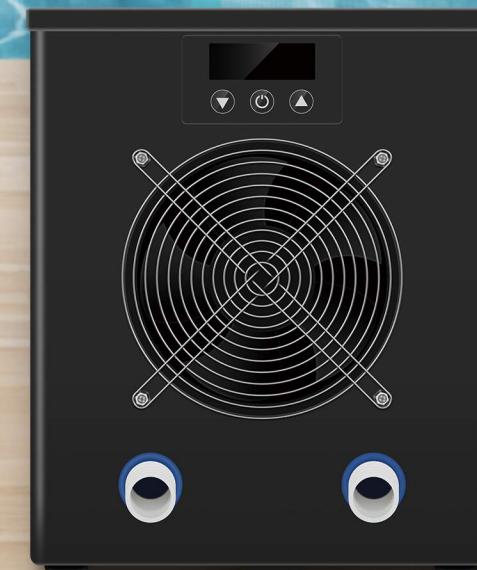
Model Name		NL-G2SII/R32	NL-G3SII/R32	NL-G5SII/R32	NL-G6SII/R32	NL-G8SII/R32	NL-G10SII/R32
Heating Capacity Range	KW	2-11	4-13	6-18	10-23	13-28	16-36
Heating (W10/7°C,W30/35°C)	Heating Capacity KW	10.6	12.5	17.6	22.7	27.8	35.3
	Power Input KW	1.85	2.13	2.89	3.77	4.69	5.85
	COP W/W	5.72	5.86	6.08	6.02	5.93	6.03
Heating (W0/-3°C,W30/35°C)	Heating Capacity KW	7.74	9.15	12.67	16.21	20.15	25.56
	Power Input KW	1.69	1.91	2.67	3.47	4.34	5.44
	COP W/W	4.57	4.8	4.75	4.67	4.64	4.70
Heating (W10/7°C,W40/45°C)	Heating Capacity KW	9.04	10.8	15.2	19.45	23.9	30.1
	Power Input KW	1.80	2.30	2.84	3.75	4.59	5.87
	COP W/W	5.02	4.69	5.35	5.19	5.21	5.13
Cooling (W30/35°C,W23/18°C)	Cooling Capacity KW	10.5	12.4	16.8	21.5	26.65	33.52
	Power Input KW	1.82	2.34	2.83	3.72	4.65	5.94
	EER W/W	5.76	5.54	5.93	5.78	5.73	5.64
Rated water flow (User side)	m³/h	1.70	2.0	2.8	3.6	4.5	5.6
Rated water flow (Source side)	m³/h	3.0	3.6	4.82	6.2	7.6	9.6
Rated voltage	V	230	230	230(400)	230(400)	400	400
Compressor (Mitsubishi)	/	SVB172FNPMC	SVB220FLGMC	MVB42FCBMC	MVB42FCBMC	LVB53FCAMC	LVB65FCAMC
4-way valve(Saginomiya)	/	STF-H0218	STF-H0218	STF-H0408	STF-H0408	STF-0750G	STF-0750G
Electronic expansion valve(Saginomiya)	/	UKV14D204	UKV18D213	UKV25D205	UKV25D205	UKV32D210	UKV32D210
Net Dimensions (LW/H)	mm	670*545*830	670*545*830	670*545*830	670*545*830	800*572*1070	800*572*1070
Packaging Dimensions (LW/H)	mm	726*481*945	726*481*945	726*481*945	726*481*945	856*598*1184	856*598*1184

Model Name		NL-G2S/R290	NL-G3S/R290	NL-G5S/R290	NL-G6S/R290
Heating Capacity Range	KW	2-11	4-14	6-19	10-23
Heating (W10/7°C,W30/35°C)	Heating Capacity KW	10.3	13.38	18.62	22.64
	Power Input KW	1.72	2.38	3.25	4.08
	COP W/W	5.98	5.62	5.73	5.55
Heating (W10/7°C,W40/45°C)	Heating Capacity KW	9.59	12.76	16.61	19.92
	Power Input KW	2.02	2.75	3.65	4.35
	COP W/W	4.75	4.64	4.55	4.58
Heating (W0/-3°C,W30/35°C)	Heating Capacity KW	7.73	9.65	13.35	16.17
	Power Input KW	1.65	2.23	2.98	3.76
	COP W/W	4.68	4.32	4.48	4.30
Cooling (W30/35°C,W23/18°C)	Cooling Capacity KW	10.30	13.21	17.52	20.71
	Power Input KW	1.90	2.58	3.35	4.10
	EER W/W	5.42	5.12	5.23	5.05
Rated water flow (User side)	m³/h	1.8	2.3	3.2	3.8
Rated water flow (Source side)	m³/h	3.0	3.6	4.9	6.3
Rated voltage	V	230	230	230(400)	230(400)
Compressor	/			Panasonic R290	
4-way valve & EEV	/			Saginomiya	
Heat exchanger type	/			Plate heat exchanger	
Net Dimensions (LW/H)	mm	670*454*830	670*454*830	670*454*830	670*454*830
Packaging Dimensions (LW/H)	mm	726*481*945	726*481*945	726*481*945	726*481*945

R32 Mini Spa Pool Air Source Heat Pump



Surfer Series



Parameter



Model Name	NL-M10Y/32	NL-M15Y/32	NL-M18Y/32	NL-M22Y/32
Advised pool volume	5~15	10~20	12~22	12~25
Power source	220V~240V ~50hz ~1 phase			
Operating ambient temp	(7°C ~ 43°C)			
Casing type	Galvanized steel case			
Funtions	Heating only			
Refrigerant	R32	R32	R32	R32
Heating: (Air 26°C	Capacity(KW)	2.91	4.2	5.2
Water 26°C/	Power input(KW)	0.58	0.83	1.07
Humidity 80%)	COP (W/W)	4.98	5.04	4.89
Heating: (Air 15°C	Capacity (KW)	1.80	2.86	4.08
Water 26°C/	Power input (KW)	0.55	0.76	1.04
Humidity 70%)	COP (W/W)	3.29	3.79	3.92
Max Current (A)	3.68	3.79	3.92	3.91
Power cable (mm ²)		Rubber cable with RCD main plug (Plug & play)		
Circuit breaker (A)	9	12	24	28
Sound pressure@2M dB(A)	48	49	49	49
Compressor type	Rotary			
Condenser	Horizontal type spiral titanium tube in PVC			
Evaporator	Hydrophilic aluminium fins & copper tubes			
Fan type	Horizontal			
Fan quantity	1 PCS			
Advised water flow (m ³ /h)	1~2	1~2	1.5~2.5	2~3
Water connection (mm)	32	32	38	38
Unit dimensions (W*D*H) (mm)	305*303*367	369*327*440	440*440*490	440*440*490
Packing dimensions (W*D*H) (mm)	400*370*430	435*420*510	530*520*550	530*520*550
Net weight (KG)	19.5	27.0	36.0	40.0
Gross weight (KG)	20.5	30.8	42.0	46.0

R32 DC Inverter Swimming Pool Heat Pump

Swimming Pool Heating/Cooling Application Expert



Application



Seal Inverter Series

Parameter



NL-PB25Y/PB35Y/R32

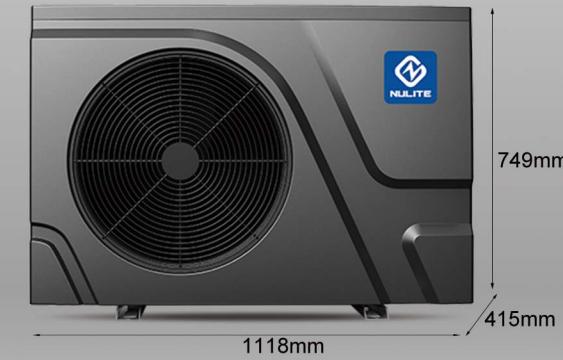
NL-PB50Y/R32

Model Name	NL-PB25Y/32	NL-PB35Y/32	NL-PB50Y/32
Heating: (Air 26°C)	Capacity(KW)	7.64	10.20
Water 26°C/	Power input(KW)	0.13~1.27	0.20~1.63
Humidity 80%)	COP (W/W)	16.16~6.23	14.50~6.26
Heating: (Air 15°C)	Capacity (KW)	5.48	7.20
Water 26°C/	Power input (KW)	0.14~1.17	0.22~1.42
Humidity 70%)	COP (W/W)	7.62~4.67	6.84~5.07
Advised pool volume		15~40	20~50
Power source		220V~240V ~50hz ~1 phase	
Operating ambient temp		(-12°C ~ 43°C)	
Casing type		ABS Plastic	
Funtions		Heating & Cooling	
Refrigerant	R32	R32	R32
Max Current (A)	7.2	9.0	16.0
Power cable (mm ²)	3x2.5	3x2.5	3x4.0
Circuit breaker (A)	9	12	18
Sound pressure@1M dB(A)	36~46	38~49	41~50
Sound pressure@2M dB(A)	20~26	21~30	23~31
Compressor type	Twin-rotary DC Inverter		
Condenser	Spiral titanium tube in PVC		
Evaporator	Hydrophilic aluminium fins & copper tubes		
Fan type	DC motor fan - Horizontal		
Fan quantity	1 PCS		
Advised water flow (m ³ /h)	2~3	3~4	5~7
Water connection (mm)	50	50	50
Unit dimensions (W*D*H) (mm)	846*338*586	846*338*586	935*370*656
Packing dimensions (W*D*H) (mm)	930*430*640	930*430*640	995*435*720
Net weight (KG)	34.3	35.2	47.8
Gross weight (KG)	38.3	39.0	52.0

Parameter



NL-PB60Y/R32



NL-PB70Y/PB80Y/R32

Model Name	NL-PB60Y/32	NL-PB70Y/32	NL-PB80Y/32
Heating: (Air 26°C)	Capacity(KW)	18.40	21.20
Water 26°C/	Power input(KW)	0.35~3.07	0.41~3.41
Humidity 80%)	COP (W/W)	14.98~5.99	14.70~6.22
Heating: (Air 15°C)	Capacity (KW)	14.30	16.50
Water 26°C/	Power input (KW)	0.44~3.2	0.49~3.64
Humidity 70%)	COP (W/W)	8.26~4.47	8.25~4.53
Advised pool volume		40~80	45~90
Power source		220V~240V ~50hz ~1 phase	
Operating ambient temp		(-12°C ~ 43°C)	
Casing type		ABS Plastic	
Funtions		Heating & Cooling	
Refrigerant		R32	R32
Max Current (A)		17.5	19.0
Power cable (mm ²)		3x4.0	3x6.0
Circuit breaker (A)		20	22
Sound pressure@1M dB(A)		42~51	43~53
Sound pressure@2M dB(A)		24~32	25~36
Compressor type	Twin-rotary DC Inverter		
Condenser	Spiral titanium tube in PVC		
Evaporator	Hydrophilic aluminium fins & copper tubes		
Fan type	DC motor fan - Horizontal		
Fan quantity	1 PCS		
Advised water flow (m ³ /h)		6~8	7~9
Water connection (mm)		50	50
Unit dimensions (W*D*H) (mm)		935*370*656	1118*415*749
Packing dimensions (W*D*H) (mm)		990*435*720	1180*530*850
Net weight (KG)		54.3	67.3
Gross weight (KG)		58.3	74.5

Parameter



NL-PG90Y/PG104Y/R32

Model Name	NL-PG90Y/32	NL-PG104Y/32	
Function	Cooling & Heating		
Technology	Full Inverter & WIFI Included		
Advised pool volume (m³)	50~100	60~120	
Power supply	230V~/1 PH/50Hz		
Operating ambient temp (°C)	(-12°C ~ 43°C)		
Casing type	Galvanized Steel Case		
Refrigerant	R32		
Heating: (Air 26°C)	Capacity(KW)	28	32
Water 26°C/	Power input(KW)	0.52~4.25	0.59~4.93
Humidity 80%)	COP (W/W)	13.6~6.58	13.8~6.49
Heating: (Air 15°C)	Capacity (KW)	22.5	25.5
Water 26°C/	Power input (KW)	0.72~4.75	0.83~5.45
Humidity 70%)	COP (W/W)	7.82~4.75	7.8~4.69
Max Current(A)		28.50	30.00
Power cord (mm²)		3x6.0	3x10.0
Advised water flow (m³/h)	Advised water flow	8~10	10~12
Sound pressure @1m		46~57 dB(A)	
Compressor type		Twin-rotary DC Inverter	
Condenser		Spiral titanium tube in PVC	
Evaporator		Hydrophilic aluminium fins & copper tubes	
Fan type		DC motor fan-Vertical	
Fan qty		1	
Net weight (kg)	Net weight	109	114
Gross weigh (kg)		139	145
Unit dimensions (W*D*H)	Unit dimensions (W*D*H)	50~100	60~120
Net size / packing size (W*D*H)		840*840*760 mm / 925*920*895 mm	
Loading qty.(20'GP/40'HQ)		24/78	

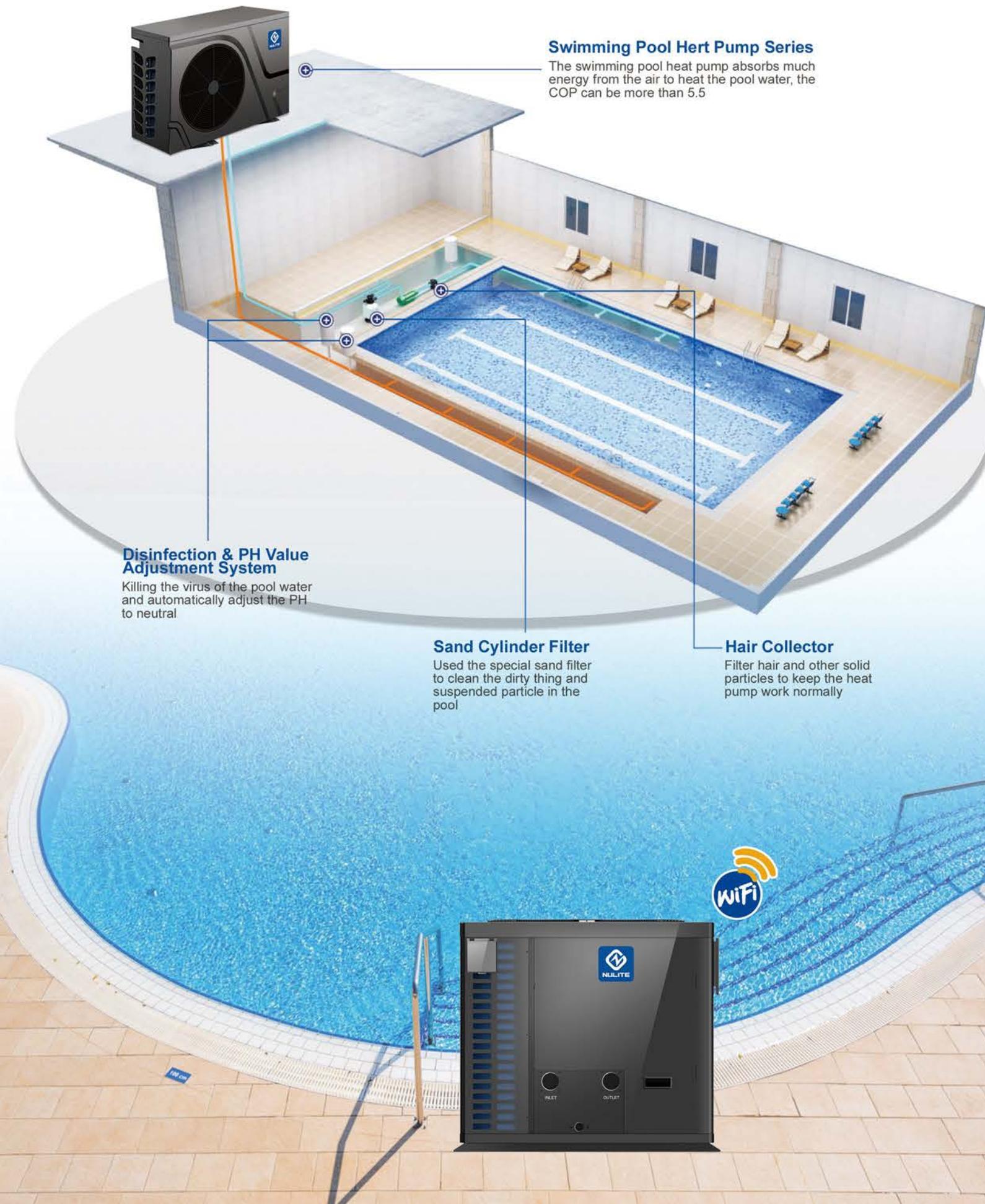
Parameter



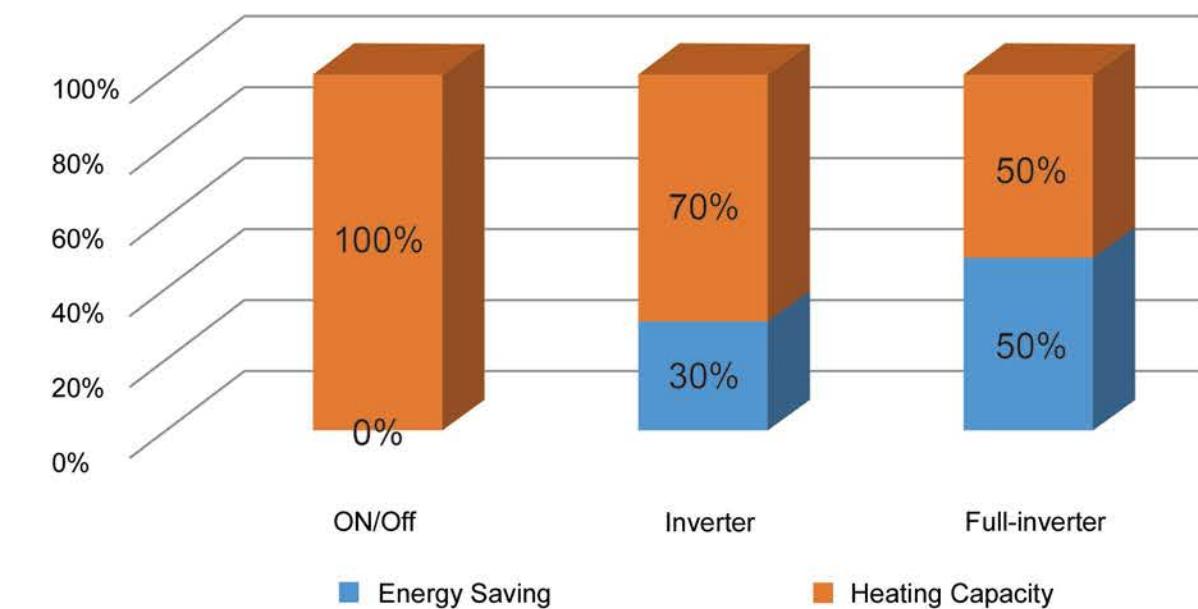
NL-PG120Y/PG140Y/R32

Model Name	NL-PG120Y/32	NL-PG140Y/32	
Function	Cooling & Heating		
Technology	Full Inverter & WIFI Included		
Advised pool volume (m³)	70~140	90-180	
Power supply	380V~/ 3 PH/ 50Hz		
Operating ambient temp (°C)	(-12°C ~ 43°C)		
Casing type	Galvanized Steel Case		
Refrigerant	R32		
Heating: (Air 26°C)	Capacity(KW)	38.5	42.3
Water 26°C/	Power input(KW)	0.7~6.14	1.11~7.05
Humidity 80%)	COP (W/W)	13.7~6.27	13.98~6.01
Heating: (Air 15°C)	Capacity (KW)	31.2	33.9
Water 26°C/	Power input (KW)	0.99~6.64	1.1~7.38
Humidity 70%)	COP (W/W)	7.76~4.7	8.15~4.6
Max Current(A)		14.00	16
Power cord (mm²)		5x6.0	5x6.0
Advised water flow (m³/h)	Advised water flow	12~14	13~15
Sound pressure @1m		46~57 dB(A)	
Compressor type		Twin-rotary DC Inverter	
Condenser		Spiral titanium tube in PVC	
Evaporator		Hydrophilic aluminium fins & copper tubes	
Fan type		DC motor fan-Vertical	
Fan qty		1	
Net weight (kg)	Net weight	119	122.5
Gross weigh (kg)		150	154
Unit dimensions (W*D*H)	Unit dimensions (W*D*H)	70~140	90-180
Net size / packing size (W*D*H)		840*840*760 mm / 925*920*895 mm	
Loading qty.(20'GP/40'HQ)		24/78	

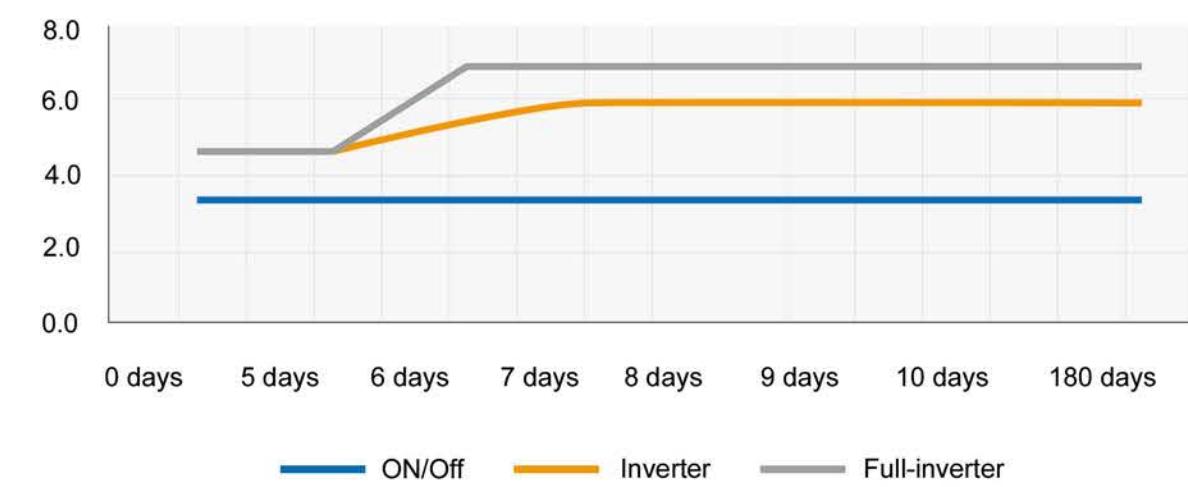
Installation Diagram



Comparison Of Energy Saving



COP During 180 Days



Household Domestic Hot Water Expert

All in one heat pump water heater



Smart Home Series



All-in-one Heat Pump Water Heater

Energy saving, health, safety

Comparing with other normal electricity powered water heater, it saves up to 75% energy, and its bacteriostasis and scale removal function help to make the daily usage safer to users.

Separated water and electricity,multiple protections

Separated water and electricity, high pressure protection, high exhaust protection, over-current protection, high temperature protection, anti-freeze and defrost, high water pressure protection.

All year long hot water supply, comfortable in constant temperature

Hot water running throughout the year, 24 hours, influenced by no bad weathers, central supplying - multiplied outlets.

Full dimensional advection heat exchange technology

Full dimensional contact heat exchange, multi stream path, high efficiency thermal conductive silicone grease seamless bonding.

Special compressor for heat pump

Special well-known compressor of heat pump; more efficient, faster in heating.

Application



Shower



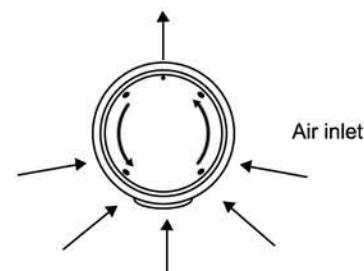
Bath



Kitchen

Blow Design

► The air will come from the side and blow out from the back



► The air will come from the top and blow out from the top



Tank Design

- Enamel Water Tank Design
- More Corrosion Resistant
- Can Handle Multiple Water Quality



Parameter



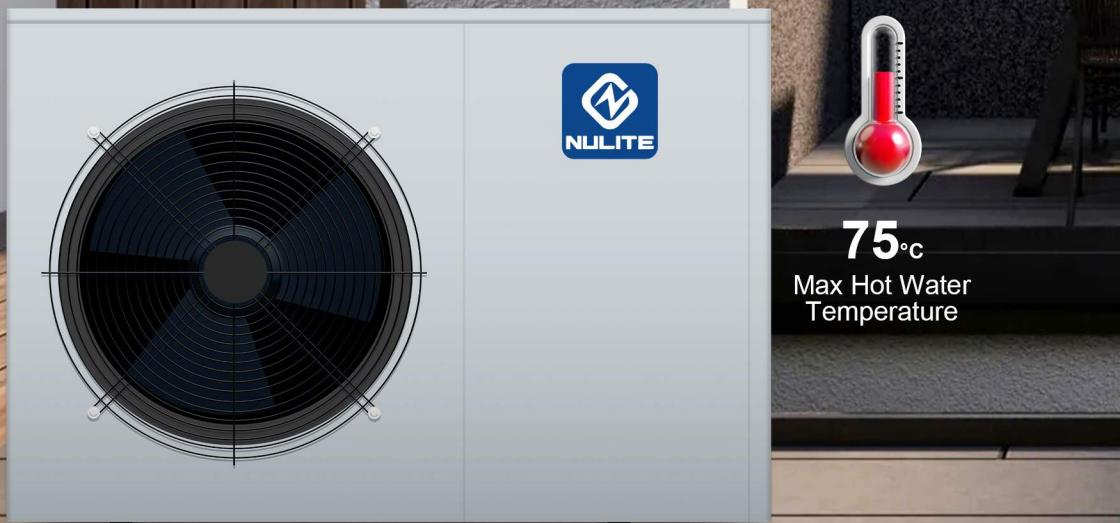
Model Name		NL-FR1.0/EN150	NL-FR1.0/EN200	NL-FR1.0/EN250	NL-FR1.0/EN300
Heating capacity	kW	1.8	1.8	2.42	2.42
Water tank Volume	L	150	200	250	300
Hot water production	L/h	39	39	52	52
Power supply	V/Hz/Ph	220~240V/50/1	220~240V/50/1	220~240V/50/1	220~240V/50/1
Rated outlet water temp	°C	55	55	55	55
Max outlet water temperature	°C	75	75	75	75
Rated input power	W	470	470	623	623
Current	A	1.85	1.85	2.3	2.3
Auxiliary electric heating	W	2000	2000	2000	2000
E-heating current	A	9.1	9.1	9.1	9.1
Refrigerant	/	R134a	R134a	R134a	R134a
Compressor	/		GMCC	Panasonic	
Four-way valve	/	SHF-4	SHF-4	SHF-4	SHF-4
Motor	/	YDK25/32	YDK25/32	YDK25/32	YDK25/32
Centrifugal fan	/	φ190	φ190	φ190	φ190
High pressure switch	Mpa	3.0~2.4	3.0~2.4	3.0~2.4	3.0~2.4
low pressure switch	MPa	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15
Ambient temperature	°C	-7~45	-7~45	-7~45	-7~45
Waterproof protection level	/	IPX4	IPX4	IPX4	IPX4
Product cabinet	/		Galvanized powder coated steel		
Material of water tank	/		Enamel tank		
Heat exchanger type	/		External coil		
Evaporator	/		Hydrophilic aluminum foil		
Throttling device	/		Electrical expansion valve		
Wire controller	/		Digital screen, touch buttons		
Pipe diameter	inch	G1/2"	G1/2"	G3/4"	G3/4"
Built-in pressure protection	MPa	0.8MPa	0.8MPa	0.8MPa	0.8MPa
Product Dimensions	mm	φ570*1515	φ570*1800	φ640*1800	φ640*2020
Packing Dimensions	mm	645*645*1700mm	645*645*1990mm	740*740*1980mm	740*740*2220mm
Net Weight	Kg	85	98	117	132
Noise	dB(A)	≤48	≤48	≤48	≤51

Mini Hot Water Heat Pump Chiller

For Small Hot Water/Heating Project



Geryser-Partner Series



Advantages



80% Energy-Saving

It can improve its performance by absorbing the heat from the air, and compared with electric water heaters, it can save 80% of electricity.



Safety And Environmental

It is a water and electricity separation system, which is more stable and safe to use. It does not use oil, it won't cause environmental pollution, and more environmentally friendly.



Central Hot Water, Comfortable

Its maximum hot water temperature is 60/75 degrees, and it can be used as a central hot water system, which is more convenient and comfortable.

Parameter

Model Name		NL-B1.0S-P	NL-B1.5S-P	NL-B2.0S	NL-B3.0S
Rated heating capacity	KW	3.5	5.1	7.2	10.3
Input power	KW	0.86	1.24	1.79	2.55
Voltage (V)	V/Hz		220V-240V ~ 50Hz		
Rated output water temperature	°C		55°C		
Max output water temperature	°C		60°C or 75°C		
Rated output water quantity (L)	L	76	109	145	225
Refrigeration			R290 / R134A / R32 / R410a		
Control mode			Microcomputer central processor (linear control)		
Compressor	Form		Rotation type		
	Quantity		1		
	Brand		Panasonic		
	Net size	mm	772*323*496	898*402*538	942*372*548
Outdoor unit	Weight	Kg	56	63	67
	Nosie level	dB(A)		<53	
Fan	Form		internal rotor motor, plastic leaves		
Ambient temperature			(-10°C ~ 43°C)		
Inlet pipe diameter			3/4"		
Outlet pipe diameter			3/4"		
Wilo water pump build-in			Optional		

Component



Compressor

Panasonic / GMCC compressor super energy saving,R290/R134A/R32/R410A refrigerant stably work in -10°C ambient



Evaporator

Hydropilic Aluminium oiland internal thread copper pipe heat exchanger



Heat Exchanger

Tube in shell heat exchanger purple copper material with high efficiency



High / Low Pressure Switch

Compressor inlet gas high/low pressure switch,protect compressor at over high/low pressure condition



Water Pump

You can choose whether to have a built-in water pump, and customize different configurations



4-Way Valve

4-way valve is for defrosting in winter



Green Refrigerant

R290/R134A refrigerant,no pollution friendly environment , Max water outlet can reach 75°C



Green Refrigerant

R32/R410A refrigerant,no pollution friendly environment , Max water outlet can reach 60°C

Installation



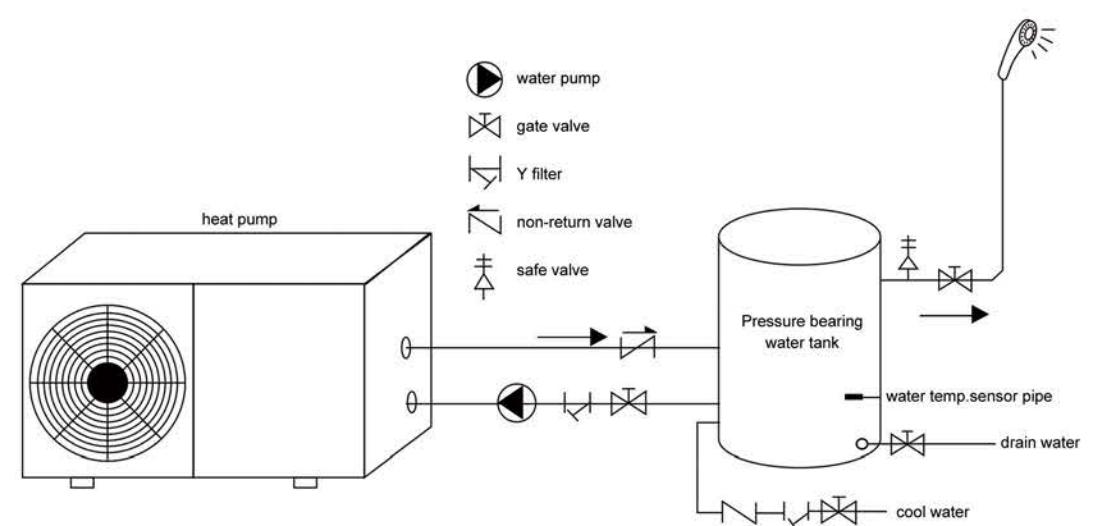
Energy Saving, Health, Safety

Comparing with other normal electricity powered water heater,it saves up to 75% energy, and its bacteriostasis and scale removal function help to make the daily usage safer to users.



Full dimensional advection heat exchange technology

Full dimensional contact heat exchange, multi stream path, high efficiency thermal conductive silicone grease seamless bonding.



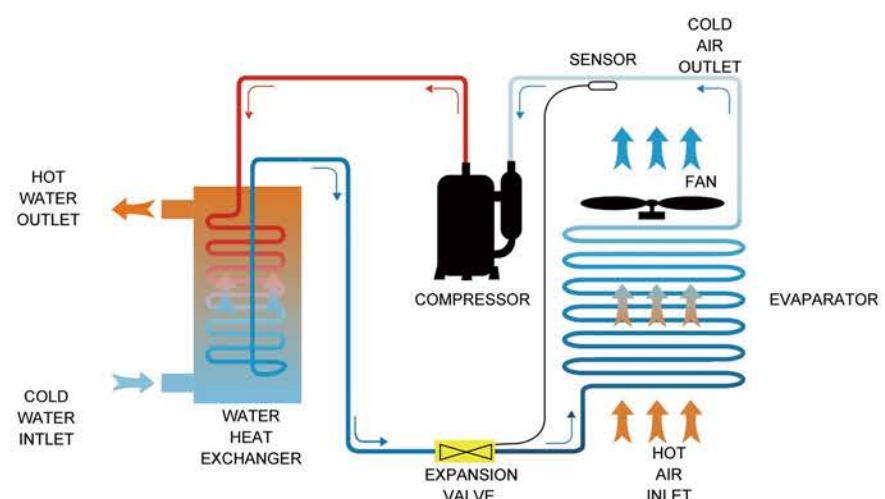
Working Principle



Panasonic / GMCC Compressor

Fast heating&energy-saving,automatically control for different demand.Adopted twin-rotor spot-balance technology, running smoothly, lower noise, longer life time.Adapting to work stably in -10°C environment,improve much heating capacity performance in low ambient environment.

- Twin-rotor type
- -10°C ultra low temperature
- 100% heating capacity production



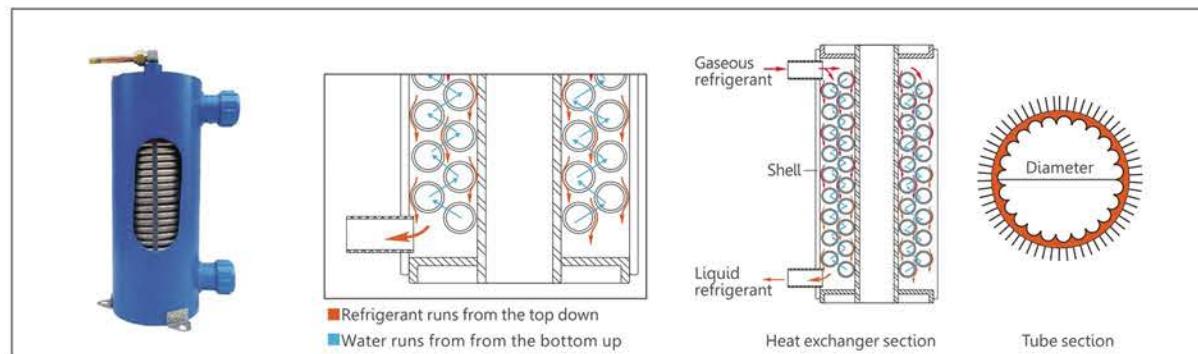
Commercial Swimming Pool Heat Pump



Advantage

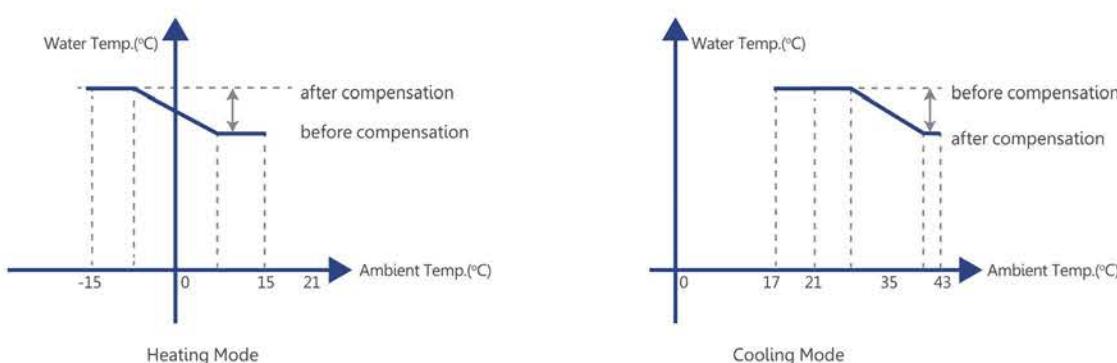
1. Patented Efficient Heat Exchanger

The patented high efficiency heat exchangers have a strong counter current design, and are helpful for refrigerant super-cooling. Because the interspace between the shell and tubes is small, this leads to a larger flow, which makes oil return easy. Additionally, the large tube diameter prevents tubes from deposits and blocking.



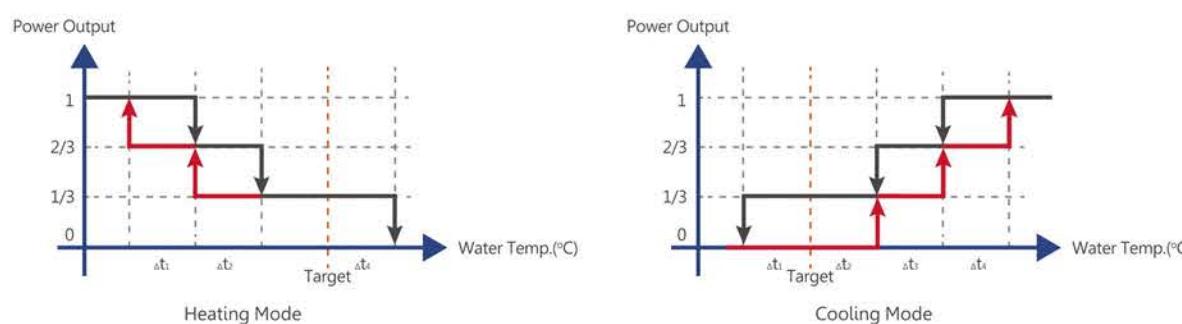
2. Temperature Compensation Technology

Automatic compensation technology can adjust water temperature according to the ambient temperature, which means you always feel comfortable, whether in winter or summer.



3. Compressor Interchange Control Logic

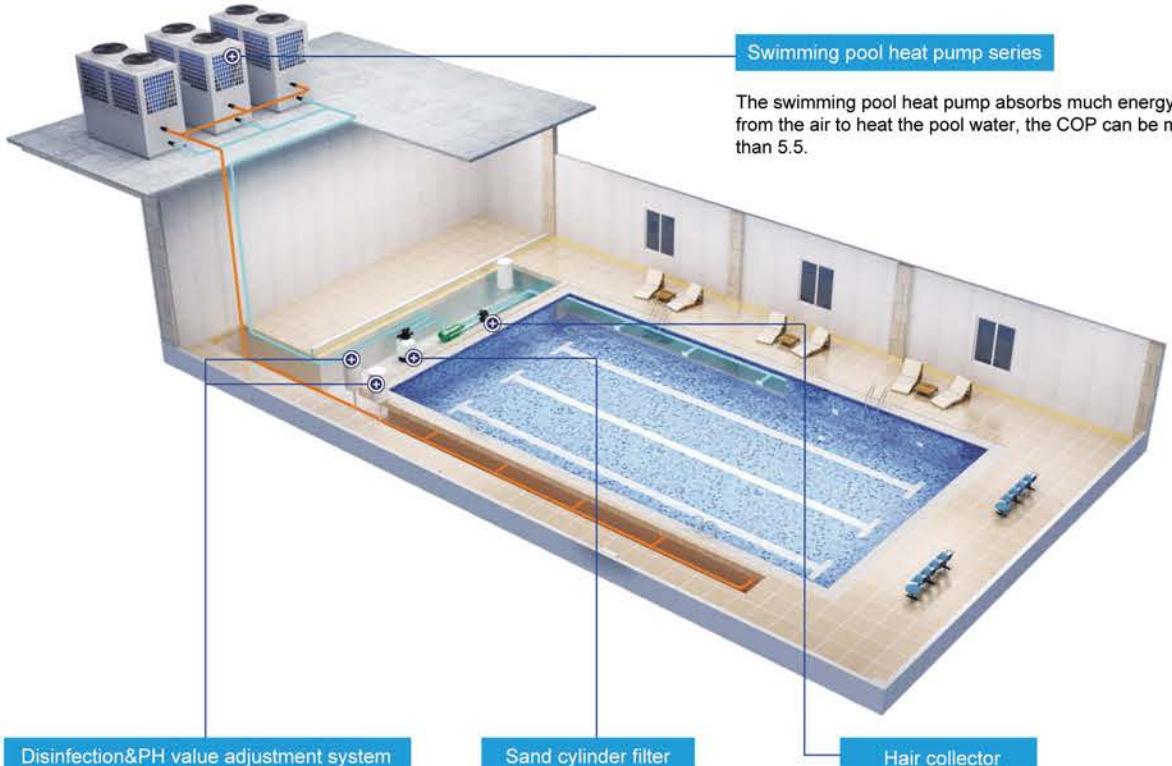
Compressor interchange control logic ensures only the energy required is delivered to the terminals with up to three compressors on or off, which provides you both comfortable temperatures and a longer service life of the units, while consuming less energy.



4. Anti-freeze Protection

With multiple anti-freezing protection, units can detect ambient temperature and outlet water temperature in real time, which helps avoid frost crack of water pipe and leakage, eventually leading units to longer and more stable operation..

Installation



Swimming pool heat pump series

The swimming pool heat pump absorbs much energy from the air to heat the pool water, the COP can be more than 5.5.

Detailed Features



The world famous EEV (electronic expansion valve) is critical to PID control the volume of the refrigerant accurately and reduces energy consumption.



The compressors can be on or off according to the actual energy need. So the units are reliable and easy to control.



Air exchangers (fins-coil) with hydrophilic coating are strongly anti-corrosive and perform at high efficiency.



With strong countercurrent design, the patented C&S heat exchanger is conducive to improving the efficiency and reliability of the unit.



Commercial Hot Water Heat Pump Water Heater

For Central Hot Water / Heating System



Max Hot Water Temperature

Ambient Temperature



Mercurius Series

Parameter



NL-G3B-G5B-G6B

NL-G8B-G10B-G12B

NL-G20B-G24B-G30B-G40B-G50B-G60B

Model Name	NL-G3B	NL-G5B	NL-G6B	NL-G8B	NL-G10B	NL-G12B
Power Source	220V/50Hz~380V/50Hz				380V/50Hz	380V/50Hz
Max Water Temp.	60°C	60°C	60°C	60°C	60°C	60°C
Heating Capacity	11.4KW	19.7KW	23KW	30.5KW	38.5KW	44.7KW
Rated Input Power	2.57KW	4.45KW	5.3KW	7.2KW	8.73KW	10.11KW
Max Input Power	3.72KW	6.4KW	7.63KW	9.8KW	12.57KW	14.56KW
Max Current	6.7A	11.4A	13.6A	17.5A	22.4A	26A
Water Flow	2m³/h	3.4m³/h	4.1m³/h	5.3m³/h	6.6m³/h	7.7m³/h
Noise Level	≤56dB(A)	≤58dB(A)	≤58dB(A)	≤62dB(A)	≤64dB(A)	≤64dB(A)
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	-10°C~43°C					
Pipe diameter	G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"
Net Size	720x720x930	830x830x1100	830x830x1100	1520x800x1235	1520x800x1235	1520x800x1235
Net Weight	95kg	125kg	138kg	250kg	265kg	280kg

Model Name	NL-G20B	NL-G24B	NL-G30B	NL-G40B	NL-G50B	NL-G60B
Power Source	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
Max Water Temp	60°C	60°C	60°C	60°C	60°C	60°C
Heating Capacity	72KW	90.3KW	115KW	140KW	180KW	230KW
Rated Input Power	18KW	20.3KW	27.8KW	36KW	41KW	56KW
Max Input Power	23.5KW	28.4KW	34.8KW	46KW	57KW	69KW
Max Current	41.9A	50.8A	62.3A	84A	106.4A	125A
Water Flow	13.5m³/h	15.5m³/h	19.5m³/h	28m³/h	32m³/h	41m³/h
Noise Level	≤68dB(A)	≤68dB(A)	≤70dB(A)	≤72dB(A)	≤74dB(A)	≤76dB(A)
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	-10°C~43°C					
Pipe diameter	G2"	G2"	G2"	G2-1/2"	G2-1/2"	G3"
Net Size	2000x950x2060	2000x950x2060	2000x950x2060	2500x1250x2240	2500x1250x2240	2500x1250x2240
Net Weight	600kg	700kg	850kg	1150kg	1350kg	1500kg

The specifications are based on: DB Temperature 20°C ,WB Temperature 15°C ,In/Out 15°C /55°C.

Notice: the above data is for reference only, the specific data is subject to actual product.

EVI Commercial Hot Water Heat Pump Water Heater

For Central Hot Water / Heating System



60°C Max Hot Water Temperature

-25°C Ambient Temperature



Saturnus Series

Parameter



NL-G3D-G5D-G6D NL-G8D-G10D-G12D NL-G20D-G24D-G30D-G40D-G50D-G60D

Model Name	NL-G3D	NL-G5D	NL-G6D	NL-G8D	NL-G10D	NL-G12D
Power Source	220V/50Hz~380V/50Hz			380V/50Hz	380V/50Hz	380V/50Hz
Max Water Temp.	60°C	60°C	60°C	60°C	60°C	60°C
Heating Capacity	11.4KW	19.7KW	23KW	30.5KW	38.5KW	44.7KW
Rated Input Power	2.57KW	4.45KW	5.3KW	7.2KW	8.73KW	10.11KW
Max Input Power	3.72KW	6.4KW	7.63KW	9.8KW	12.57KW	14.56KW
Max Current	6.7A	11.4A	13.6A	17.5A	22.4A	26A
Water Flow	2m³/h	3.4m³/h	4.1m³/h	5.3m³/h	6.6m³/h	7.7m³/h
Noise Level	≤56dB(A)	≤58dB(A)	≤58dB(A)	≤62dB(A)	≤64dB(A)	≤64dB(A)
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.				-25°C~43°C		
Pipe diameter	G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"
Net Size	720x720x930	830x830x1100	830x830x1100	1520x800x1235	1520x800x1235	1520x800x1235
Net Weight	95kg	125kg	138kg	250kg	265kg	280kg

Model Name	NL-G20D	NL-G24D	NL-G30D	NL-G40D	NL-G50D	NL-G60D
Power Source	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
Max Water Temp.	60°C	60°C	60°C	60°C	60°C	60°C
Heating Capacity	72KW	90.3KW	115KW	140KW	180KW	230KW
Rated Input Power	18KW	20.3KW	27.8KW	36KW	41KW	56KW
Max Input Power	23.5KW	28.4KW	34.8KW	46KW	57KW	69KW
Max Current	41.9A	50.8A	62.3A	84A	106.4A	125A
Water Flow	13.5m³/h	15.5m³/h	19.5m³/h	28m³/h	32m³/h	41m³/h
Noise Level	≤68dB(A)	≤68dB(A)	≤70dB(A)	≤72dB(A)	≤74dB(A)	≤76dB(A)
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.				-25°C~43°C		
Pipe diameter	G2"	G2"	G2"	G2-1/2"	G2-1/2"	G3"
Net Size	2000x950x2060	2000x950x2060	2000x950x2060	2500x1250x2240	2500x1250x2240	2500x1250x2240
Net Weight	600kg	700kg	850kg	1150kg	1350kg	1500kg

The specifications are based on: DB Temperature 20°C ,WB Temperature 15°C ,In/Out 15°C /55°C.

Notice: the above data is for reference only, the specific data is subject to actual product.

High Temperature Heat Pump Water Heater

For Central Hot Water / Heating System



75°C
Max Hot Water Temperature

-10°C
Ambient Temperature

Martis Series



Parameter



NL-G3G-G5G-G6G NL-G8G-G10G-G12G NL-G20G-G24G-G30G-G40G-G50G-G60G

Model Name	NL-G3G	NL-G5G	NL-G6G	NL-G8G	NL-G10G	NL-G12G
Power Source	220V/50Hz~380V/50Hz				380V/50Hz	380V/50Hz
Max Water Temp.	75°C	75°C	75°C	75°C	75°C	75°C
Heating Capacity	11.4KW	19.7KW	23KW	30.5KW	38.5KW	44.7KW
Rated Input Power	2.57KW	4.45KW	5.3KW	7.2KW	8.73KW	10.11KW
Max Input Power	3.72KW	6.4KW	7.63KW	9.8KW	12.57KW	14.56KW
Max Current	6.7A	11.4A	13.6A	17.5A	22.4A	26A
Water Flow	2m³/h	3.4m³/h	4.1m³/h	5.3m³/h	6.6m³/h	7.7m³/h
Noise Level	≤56dB(A)	≤58dB(A)	≤58dB(A)	≤62dB(A)	≤64dB(A)	≤64dB(A)
Refrigerant	R134a	R134a	R134a	R134a	R134a	R134a
Working ambient temp.	-10°C~43°C					
Pipe diameter	G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"
Net Size	720x720x930	830x830x1100	830x830x1100	1520x800x1235	1520x800x1235	1520x800x1235
Net Weight	95kg	125kg	138kg	250kg	265kg	280kg

Model Name	NL-G20G	NL-G24G	NL-G30G	NL-G40G	NL-G50G	NL-G60G
Power Source	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
Max Water Temp	75°C	75°C	75°C	75°C	75°C	75°C
Heating Capacity	72KW	90.3KW	115KW	140KW	180KW	230KW
Rated Input Power	18KW	20.3KW	27.8KW	36KW	41KW	56KW
Max Input Power	23.5KW	28.4KW	34.8KW	46KW	57KW	69KW
Max Current	41.9A	50.8A	62.3A	84A	106.4A	125A
Water Flow	13.5m³/h	15.5m³/h	19.5m³/h	28m³/h	32m³/h	41m³/h
Noise Level	≤68dB(A)	≤68dB(A)	≤70dB(A)	≤72dB(A)	≤74dB(A)	≤76dB(A)
Refrigerant	R134a	R134a	R134a	R134a	R134a	R134a
Working ambient temp.	-10°C~43°C					
Pipe diameter	G2"	G2"	G2"	G2-1/2"	G2-1/2"	G3"
Net Size	2000x950x2060	2000x950x2060	2000x950x2060	2500x1250x2240	2500x1250x2240	2500x1250x2240
Net Weight	600kg	700kg	850kg	1150kg	1350kg	1500kg

The specifications are based on: DB Temperature 20°C ,WB Temperature 15°C ,In/Out 15°C /55°C.

Notice: the above data is for reference only, the specific data is subject to actual product.

Commercial AC Heat Pump Water Heater

For central heating/cooling system



-10°C

Ambient Temperature

Jupiter Series



Parameter



NL-G3K-G5K-G6K

NL-G8K-G10K-G12K

NL-G20K-G24K-G30K-G40K-G50K-G60K

Model Name		NL-G3K	NL-G5K	NL-G6K	NL-G8K	NL-G10K	NL-G12K
Power Source	V/Hz	220V/50Hz~380V/50Hz		380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
AC Water Temp.	°C			7~12°C / 35~45°C			
Heating Capacity	KW	8.4	15	18.5	24.58	29.5	34.12
Rated heating input Power	KW	2.79	4.69	5.82	7.62	9.38	11.04
Cooling Capacity	KW	7.84	12.8	16.3	21.2	26.2	31.1
Rated cooling input Power	KW	2.56	4.4	5.6	7.3	9.01	10.58
Max Input Power	KW	3.72	6.4	7.63	9.8	12.57	14.56
Max Current	A	6.7	11.4	13.6	17.5	22.4	26
Water Flow	m³/h	2	3.4	4.1	5.3	6.6	7.7
Noise Level	dB(A)	≤56	≤58	≤58	≤62	≤64	≤64
Refrigerant	/	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	°C			-10°C ~ 43°C			
Pipe diameter	/	G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"
Net Size	mm	720*720*930	830*830*1100	830*830*1100	1520*800*1235	1520*800*1235	1520*800*1235
Net Weight	KG	95	125	138	250	265	280

Model Name		NL-G20K	NL-G24K	NL-G30K	NL-G40K	NL-G50K	NL-G60K
Power Source	V/Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
AC Water Temp.	°C			7~12°C / 35~45°C			
Heating Capacity	KW	58.5	68	96	135	173	215
Rated Input Power	KW	17.8	22.3	26	33	43	54
Cooling Capacity	KW	50.2	63.8	73	92	115	145
Rated cooling input Power	KW	17.1	21.9	24.8	31.2	39.1	49.3
Max Input Power	KW	23.5	28.4	34.8	46	57	69
Max Current	A	41.9	50.8	62.3	84	106.4	125
Water Flow	m³/h	13.5	15.5	19.5	28	32	41
Noise Level	dB(A)	≤68	≤68	≤70	≤72	≤74	≤76
Refrigerant	/	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	°C			-10°C ~ 43°C			
Pipe diameter	/	G2"	G2"	G2"	G2-1/2"	G2-1/2"	G3"
Net Size	mm	2000*950*2060	2000*950*2060	2000*950*2060	2500*1250*2240	2500*1250*2240	2500*1250*2240
Net Weight	KG	600	700	850	1150	1350	1500

EVI Commercial AC Heat Pump Water Heater

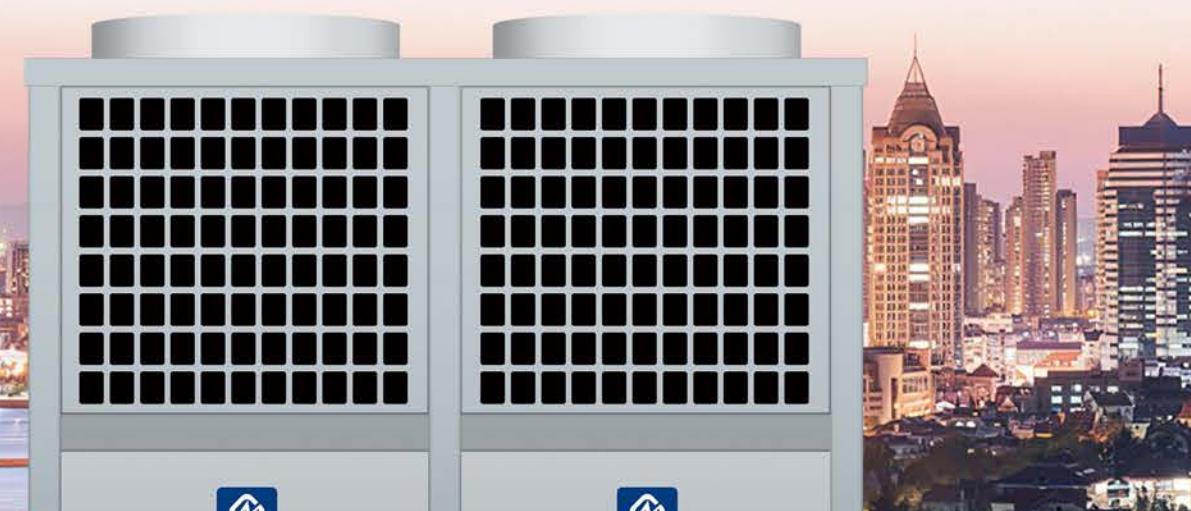
For Central Heating/Cooling System



-25°C

Ambient Temperature

Venus Series



Parameter



NL-G3KD-G5KD-G6KD

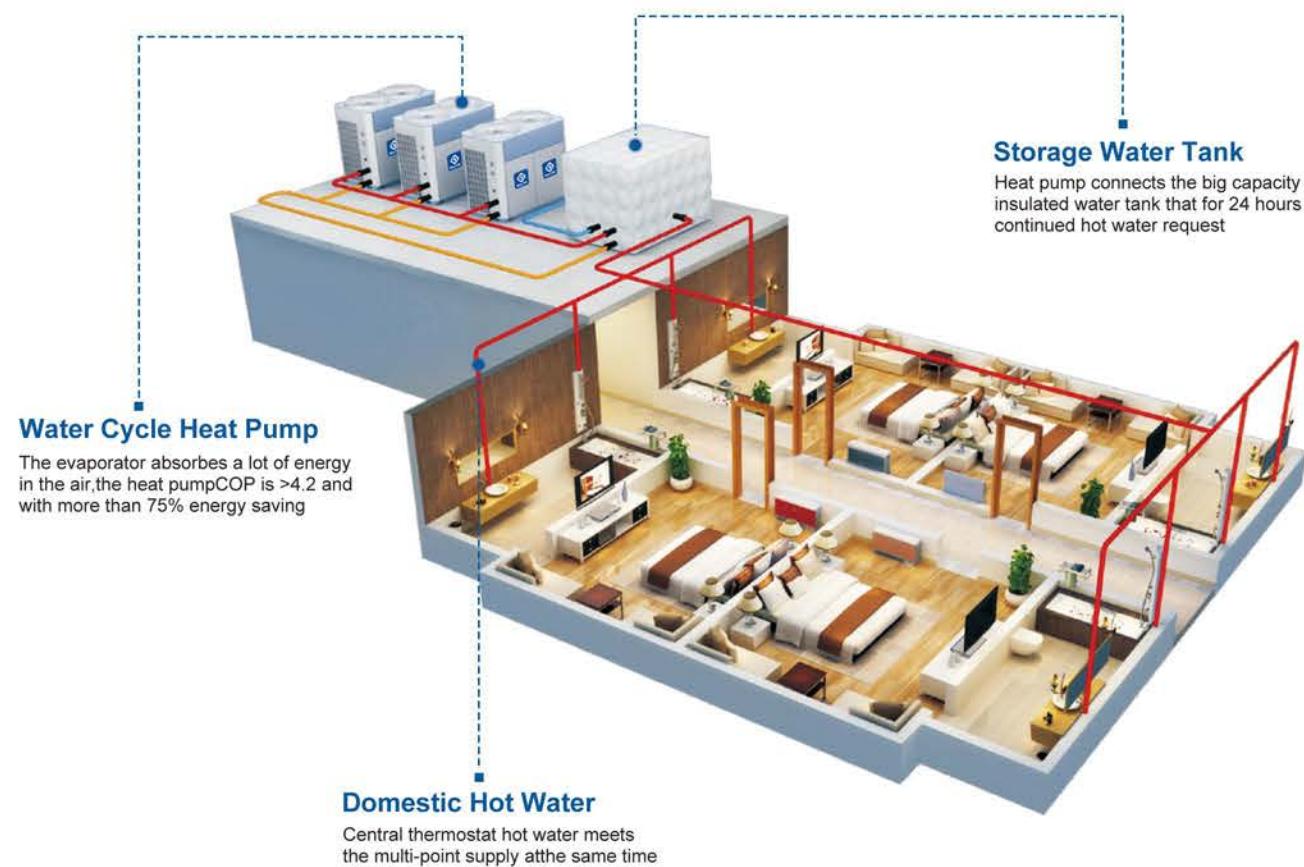
NL-G8KD-G10KD-G12KD

NL-G20KD-G24KD-G30KD
G40KD-G50KD-G60KD

Model Name	V/Hz	NL-G3KD	NL-G5KD	NL-G6KD	NL-G8KD	NL-G10KD	NL-G12KD
Power Source	V/Hz	220V/50Hz~380V/50Hz			380V/50Hz	380V/50Hz	380V/50Hz
AC Water Temp.	°C				7~12°C / 35~45°C		
Heating Capacity	KW	8.4	15	18.5	24.58	29.5	34.12
Rated heating input Power	KW	2.79	4.69	5.82	7.62	9.38	11.04
Cooling Capacity	KW	7.84	12.8	16.3	21.2	26.2	31.1
Rated cooling input Power	KW	2.56	4.4	5.6	7.3	9.01	10.58
Max Input Power	KW	3.72	6.4	7.63	9.8	12.57	14.56
Max Current	A	6.7	11.4	13.6	17.5	22.4	26
Water Flow	m³/h	2	3.4	4.1	5.3	6.6	7.7
Noise Level	dB(A)	≤56	≤58	≤58	≤62	≤64	≤64
Refrigerant	/	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	°C				-25°C ~ 43°C		
Pipe diameter	/	G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"
Net Size	mm	720*720*930	830*830*1100	830*830*1100	1520*800*1235	1520*800*1235	1520*800*1235
Net Weight	KG	95	125	138	250	265	280

Model Name	V/Hz	NL-G20KD	NL-G24KD	NL-G30KD	NL-G40KD	NL-G50KD	NL-G60KD
Power Source	V/Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
AC Water Temp.	°C			7~12°C / 35~45°C			
Heating Capacity	KW	58.5	68	96	135	173	215
Rated Input Power	KW	17.8	22.3	26	33	43	54
Cooling Capacity	KW	50.2	63.8	73	92	115	145
Rated cooling input Power	KW	17.1	21.9	24.8	31.2	39.1	49.3
Max Input Power	KW	23.5	28.4	34.8	46	57	69
Max Current	A	41.9	50.8	62.3	84	106.4	125
Water Flow	m³/h	13.5	15.5	19.5	28	32	41
Noise Level	dB(A)	≤68	≤68	≤70	≤72	≤74	≤76
Refrigerant	/	R410a	R410a	R410a	R410a	R410a	R410a
Working ambient temp.	°C			-25°C ~ 43°C			
Pipe diameter	/	G2"	G2"	G2"	G2-1/2"	G2-1/2"	G3"
Net Size	mm	2000*950*2060	2000*950*2060	2000*950*2060	2500*1250*2240	2500*1250*2240	2500*1250*2240
Net Weight	KG	600	700	850	1150	1350	1500

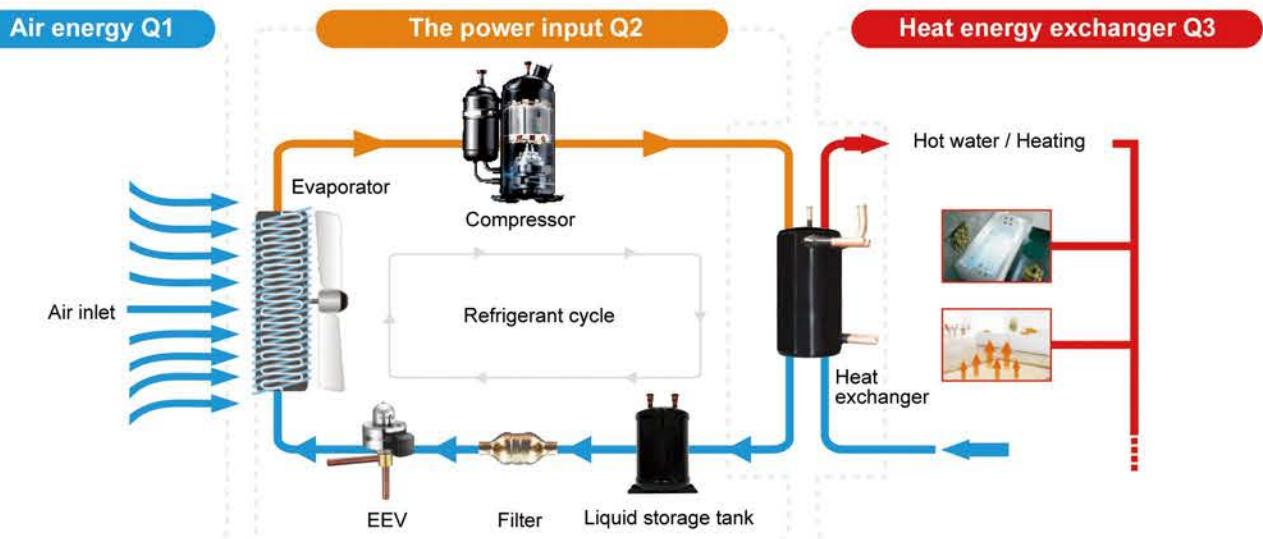
Commercial Heat Pump



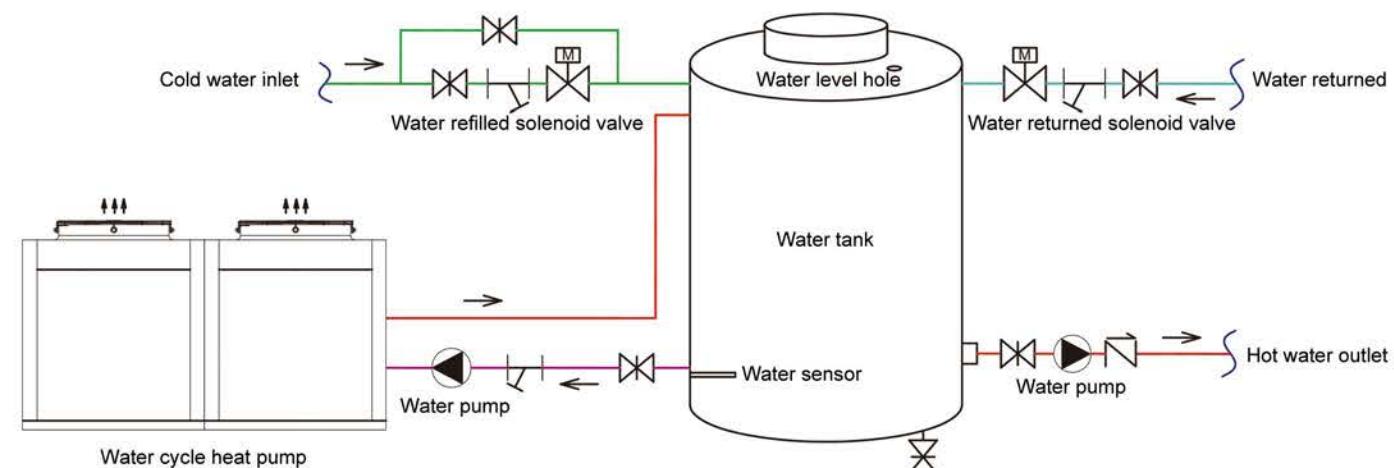
Multi-protection & Long Service Life



Working Principle



Commercial Installation Diagram



Geothermal Water Heat Pump

Water source / Ground source Heat Pump
Heating / Cooling / Hot Water



Parameter



NL-G2S-G3S-G4S-G5S-G6S-G8S

Model Name		NL-G2S	NL-G3S	NL-G4S	NL-G5S	NL-G6S	NL-G8S
Rated heating water capacity (W)	W	7400	10800	14300	17700	21100	28100
Input power (W)	W	1700	2500	3300	4100	4900	6400
COP		4.35	4.32	4.33	4.32	4.31	4.39
Rated cooling capacity (W)	W	6500	9500	12600	15600	18600	24800
Input power (W)	W	1200	1700	2300	2800	3400	4500
Voltage (V)	V/Hz	220V- 50Hz		380V-50Hz			
Rated AC water temperature	°C			7--12°C or 35--45°C			
Refrigeration				R410a/R407C			
Control mode				Microcomputer central processor (linear control)			
	Form			Scroll type			
Compressor	Quantity	1	1	1	1	1	2
	Brand			Panasonic/Copeland			
	Form			panel or spiral pipe			
condenser / outdoor cycle	pipe diameter	DN	25	25	32	32	40
	Flow Rate	m3	1.3	1.8	2.5	3.0	3.6
	Form			panel or spiral pipe			
Evaporator / indoor cycle	pressure loss		<40kpa		<50kpa		
	pipe diameter DN	DN	25	25	32	32	40
	Flow Rate m3	m3	1.1	1.6	2.2	2.7	3.2
	Net size	mm	600*600*950	600*600*950	600*600*950	600*600*950	800*600*950
Unit	Weight	Kg	120	125	130	135	150
	Nosie level	dB(A)	49	54	54	60	60

Above heating capacity based on the conditions @ source in/out. 15°C /9 °C and indoor cycle in/out. 40/45 °C;

Above cooling capacity based on the conditions @ source in/out. 18°C /26 °C and indoor cycle in/out. 12/7 °C;

Parameter



NL-G10S-G12S-G16S-G25S-G50S

Model Name		NL-G10S	NL-G12S	NL-G16S	NL-G25S	NL-G50S
Rated heating water capacity (W)	W	34000	40800	54300	89000	178000
Input power (W)	W	7700	9500	9500	13200	26400
COP		4.42	4.29	5.72	6.74	6.74
Rated cooling capacity (W)	W	30000	36000	48000	78600	157200
Input power (W)	W	5500	6500	8700	14300	28600
Voltage (V)	V/Hz			380V-50Hz		
Rated AC water temperature	°C			7--12°C or 35--45°C		
Refrigeration				R410a/R407C		
Control mode				Microcomputer central processor (linear control)		
	Form			Scroll type		
Compressor	Quantity		2	2	2	2
	Brand			Panasonic/Copeland		
	Form			panel or spiral pipe		
condenser / outdoor cycle	pipe diameter	DN	40	40	50	50
	Flow Rate	m3	5.8	7.0	9.3	15.3
	Form			panel or spiral pipe		
Evaporator / indoor cycle	pressure loss			<50kpa		
	pipe diameter DN	DN	40	40	50	50
	Flow Rate m3	m3	5.2	6.2	8.3	13.5
	Net size	mm	800*600*950	800*600*950	1250*550*1625	1250*550*1625
Unit	Weight	Kg	205	205	350	375
	Nosie level	dB(A)	64.5	64.5	64.5	74

Above heating capacity based on the conditions @ source in/out. 15°C /9 °C and indoor cycle in/out. 40/45 °C;

Above cooling capacity based on the conditions @ source in/out. 18°C /26 °C and indoor cycle in/out. 12/7 °C;

Enamel Water Tank Buffer Tank



Advantage



Tank shell material

Galvanized sheet electrostatic powder spraying shell series, numerical automatic direct seaming welding.12 prior treatments, spraying production line. Leading technology, superior quality.



Inner tank material

TBC or SPCC sheet plate is adopted for the tank body, welded with fully numerical automatic welding equipment. The connecting area is welded with fully automatic welding machine Co2 , to ensure the welding strength.



Thermal insulation material of water tank

Environment friendly cyclopentane material is adopted; Thermal insulation layer is made of disposable foaming by German disposable foaming machine. Thickness: 50 mm. Superior quality, safe & energy saving, good performance in heat preservation, with only a small drop of five degrees in a heat preservation period of 24 hours.



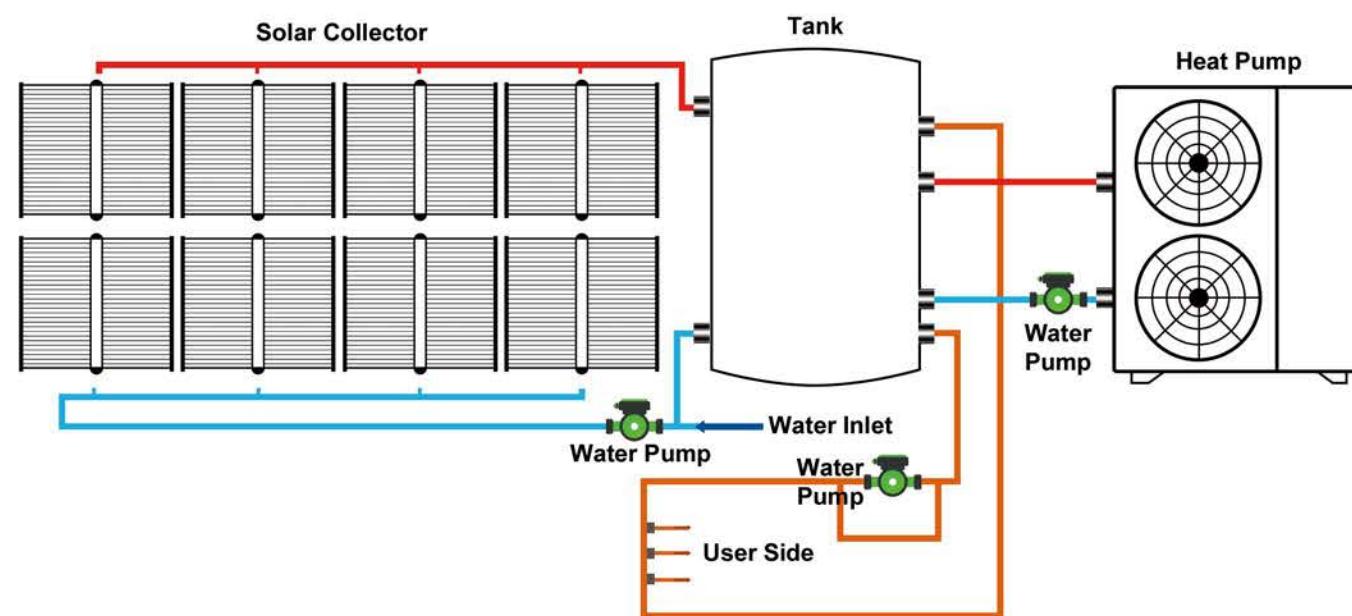
Model Name	Volume	Size(mm)	Inner tank material	Inner tank thickness(mm)	Insulation Materials Thickness
NL-E150L	150L	470*1510mm	SPCC	2.0+0.05mm	50mm Polyurethane
NL-E200L	200L	510*1615mm	SPCC	2.0+0.05mm	50mm Polyurethane
NL-E260L	260L	570*1590mm	SPCC	2.0+0.05mm	50mm Polyurethane
NL-E300L	300L	570*1805mm	SPCC	2.0+0.05mm	50mm Polyurethane
NL-E500L	500L	600*1900mm	SPCC	2.0+0.05mm	50mm Polyurethane

Stainless Steel Tanks

- + SUS304/316/2205
- + Buffer tank
- + Storage hot water tank
- + Can work with heat pump and Solar collector



Installatin Case



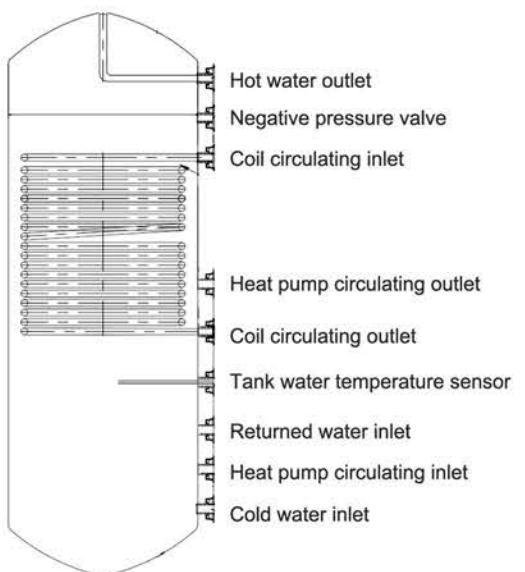
Parameter

Model Name	Inner tank	Inner tank Size(MM)	Unit size(MM)	Insulation Material Thickness	Package size
NL-T40L	SUS304	&1.0/φ370	φ470*525	50mm Polyurethane	540*540*530
NL-T60L	SUS304	&1.0/φ370	φ470*725	50mm Polyurethane	540*540*720
NL-T80L	SUS304	&1.0/φ370	φ470*850	50mm Polyurethane	540*540*920
NL-T100L	SUS304	&1.0/φ370	φ470*1115	50mm Polyurethane	540*540*1100
NL-T120L	SUS304	&1.0/φ370	φ470*1325	50mm Polyurethane	540*540*1300
NL-T150L	SUS304	&1.2/φ370	φ470*1545	50mm Polyurethane	540*540*1530
NL-T200L	SUS304	&1.4/φ420	φ520*1545	50mm Polyurethane	595*595*1600
NL-T250L	SUS304	&1.4/φ470	φ560*1625	50mm Polyurethane	630*630*1650
NL-T300L	SUS304	&1.5/φ470	φ560*1915	50mm Polyurethane	630*630*1950
NL-T400L	SUS304	&1.8/φ600	φ700*1625	50mm Polyurethane	780*780*1700
NL-T500L	SUS304	&1.8/φ600	φ700*1915	50mm Polyurethane	780*780*1980

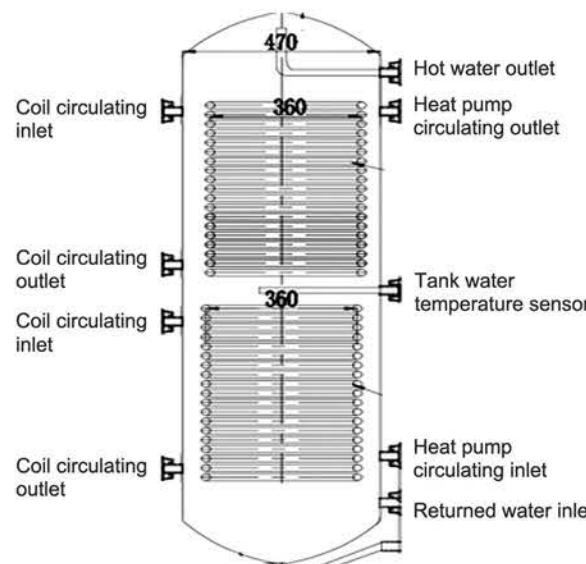
1 Design 1

Built with one Serpentine coil inside for house heating system to use.

Like for floor heating,radiator, fan coil units,etc.

**2 Design 2**

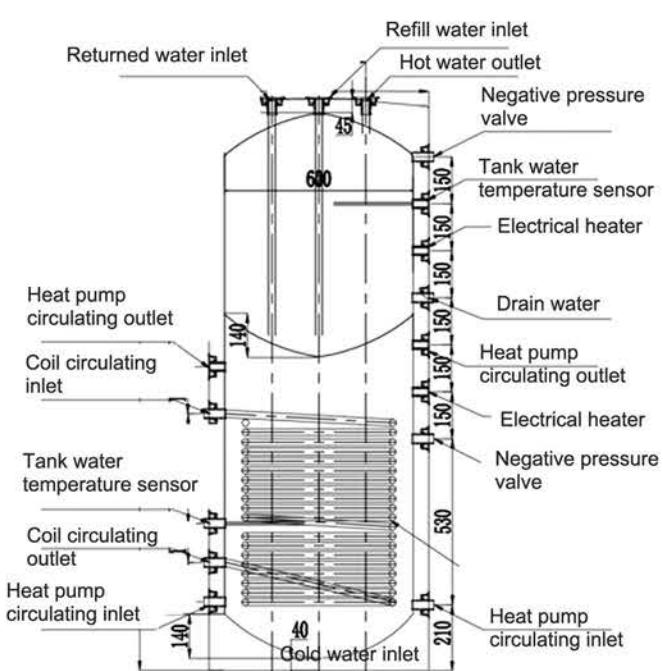
Built with double Serpentine coils inside for house heating system and solar collector.

**3 Design 3**

Gallbladder design,the bigger tank was used for heating system,inner tank was used for domestic hot water.

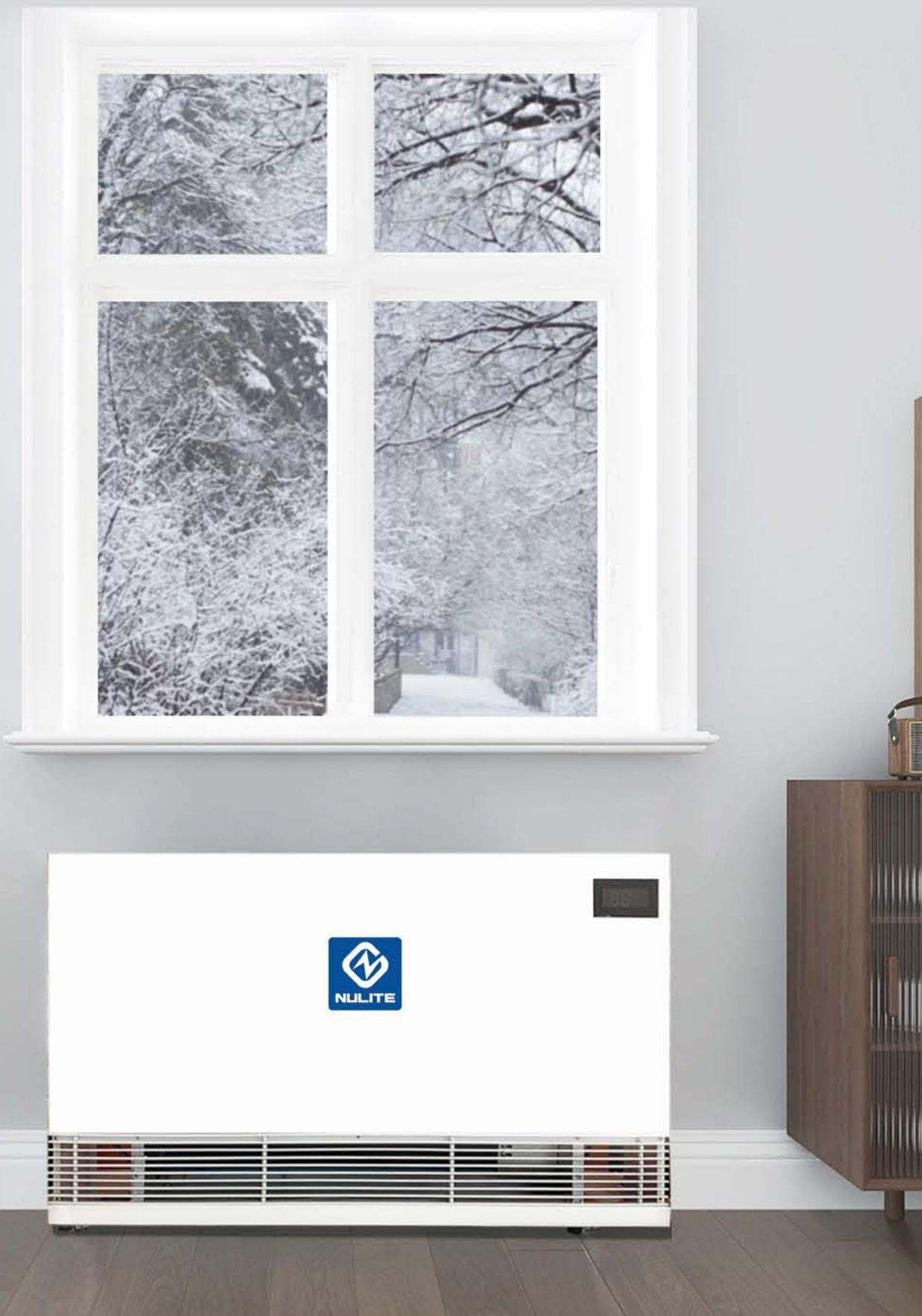
Built with double tank inside, One for domestic hot water, another for heating system

Two circulation connection, One for heat pump,another one for the solar collector

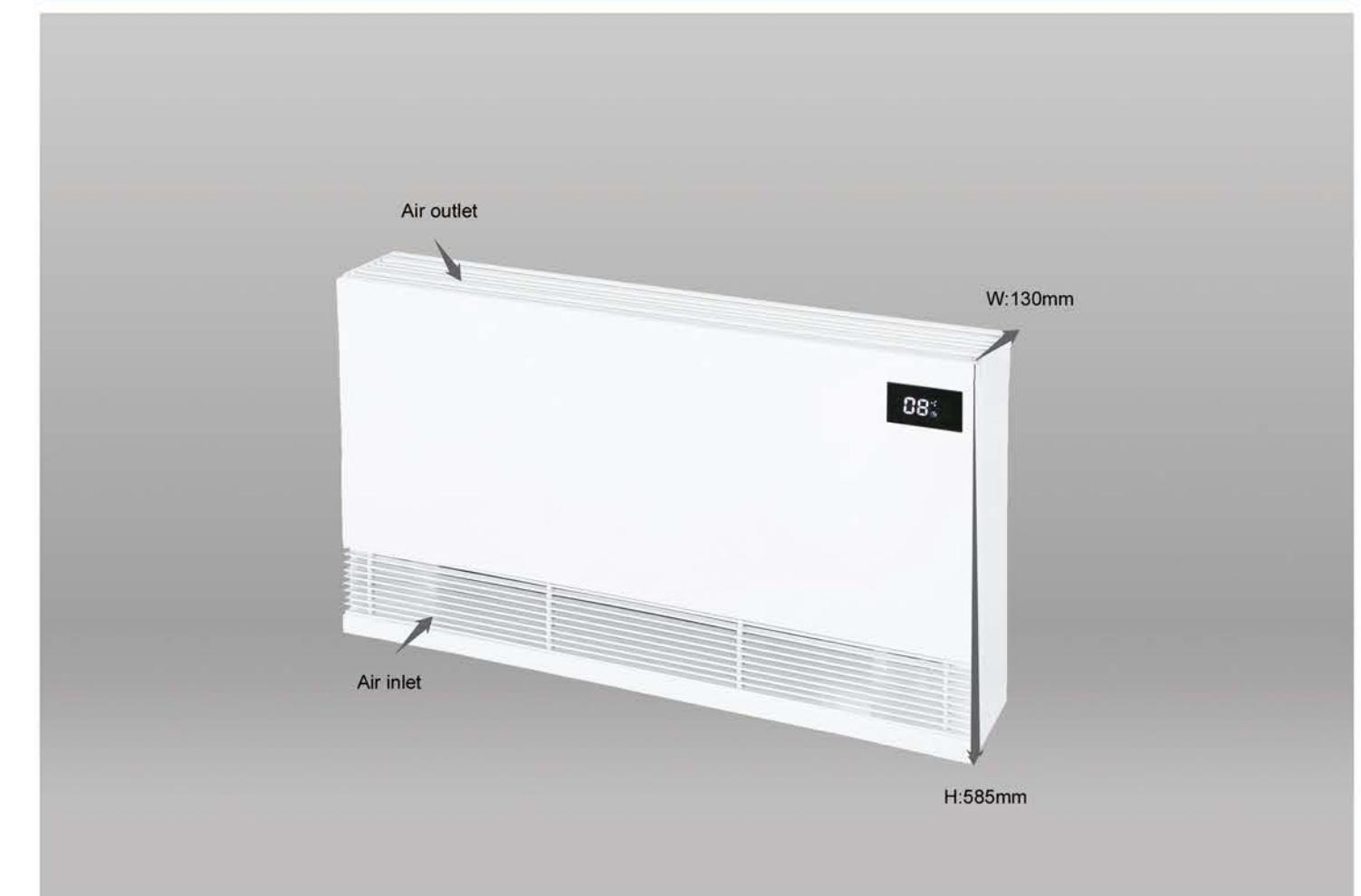
**Project Installations**

Ultra Floor Standing Fan Coil Unit

It Is Water System, Heating And Cooling Function



Parameter



Model Name	MFP-40	MFP-50	MFP-60
Air volume (m ³ /h)	High	400	500
	Middle	360	450
	Low	320	400
Cooling capacity(W)	High	2600	3500
	Middle	2340	3150
	Low	2100	2830
Heating capacity (w)	High	3200	4300
	Middle	2880	3870
	Low	2590	3480
Noise db(A)	<43	<45	<48
Input power (W)	65	82	98
Temperature for cold water	7°C~12°C		
Temperatureheat water	65°C~60°C		
Power(V/HZ)	Single-phase power supply 220v、50Hz		
Water pipes(Dia)	R3/4"	R3/4"	R3/4"
Drain pipe(Dia)	R1/2"	R1/2"	R1/2"
Size L×W×H	990*130*585	1085*130*585	1220*130*585
Weight of unit(kg)	23	25	26

Wall Mounted Fan Coil Units

It Is Water System, Heating And Cooling Function



Features

- 1, Exquisite Structure, pleasing in appearance, reasonable product structure, acoustic heat insulator, fire insulation.
- 2, It has the fine design, light weight and good strength and can be equipped at any place.
- 3, The efficiency is high Fan coil adopt seamless red Copper Pipe and aluminum blinds-fin .
- 4, It is easy to control and owns complete functions.

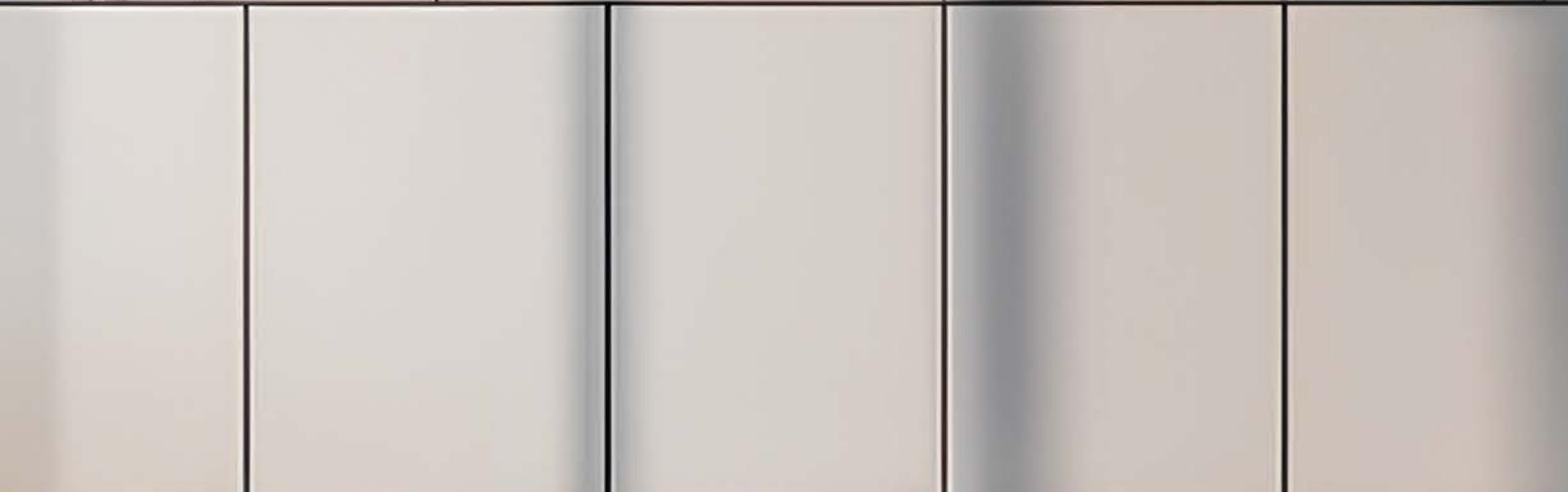
Parameter



Model Name	FP-68BG	FP-85BG	FP-102BG
Air volume (m ³ /h)	High Middle Low	680 470 360	850 685 585
Cooling capacity(btu)	High High	12000 3600	18000 4500
Cooling capacity(W)	Middle Low High	2610 2150 5400	3440 2750 6750
Heating capacity (w)	Middle Low	3950 3700	5160 4130
Power Input [w]		50	60
Water flow rate [m ³ /h]		0.6	0.8
Water pressure drop [kPa]		25	30
Noise dB(A)		≤45	≤48
Max working pressure [MPa]			2
Chilled water temperature			7°C-12°C
Standard External Pressure			12 Pa
Hot water temperature			65°C-60°C
Supply power(V Hz)			Single phase A.C. 220V 50Hz
Water pipe			ZG3/4"
Outside measurement(L*W*H)	890*200*280	1000*225*320	1080*240*350
Weight(Kg)	12.5	14	16

Cassette Fan Coil Unit

It Is Water System, Heating And Cooling Function



Parameter



Model Name	FP-34KM	FP-51KM	FP-68KM	FP-85KM	FP-102KM
air volume (m ³ /h)	High Middle Low	340 280 180	510 390 260	680 520 350	850 640 430
Rated cooling capacity(kw)	1.98	2.98	3.68	4.98	5.58
Rated heating capacity(kw)	2.987	4.8	5.48	7.2	8.18
Water flow rate (m ³ /h)	0.42	0.52	0.62	0.86	0.98
Hydraulic resistance(Kpa)	7	9	11	18	19
Water capacity /L	1.65	1.66	1.67	2.03	2.06
Noise level dB(A)	37	39	41	43	45
Motor Power/W	12	15	15	22	25
Input power/W	35	50	58	72	92
Current/A	0.16	0.23	0.28	0.36	0.43
Voltage V/P/Hz	220V/1P/50HZ				
Controller	Remote control /Wire control				
Net size (mm)	580*580*290				720*720*290
Package size (mm)	720*720*380				860*860*380
Panel size (mm)	650*650*30				800*800*30
Net weight(kg)	23				29
Pipe size	ZG3/4" (DN20)				
Model Name	FP-136KM	FP-170KM	FP-204KM	FP-238KM	
air volume (m ³ /h)	High Middle Low	1360 1030 690	1700 1290 860	2040 1500 1032	2380 1800 1200
Rated cooling capacity(kw)	7.2	9.9	10.8	12.6	
Rated heating capacity(kw)	10.8	14.5	16.2	18.9	
Water flow rate (m ³ /h)	1.08	1.58	1.78	1.92	
Hydraulic resistance(Kpa)	22	30	32	35	
Water capacity /L	2.09	2.88	2.98	3.08	
Noise level dB(A)	46	47	59	52	
Motor Power/W	30	40	40	70	
Input power/W	126	128	152	200	
Current/A	0.59	0.67	0.85	0.98	
Voltage V/P/Hz	220V/1P/50HZ				
Controller	Remote control /Wire control				
Net size (mm)	720*720*290				830*830*290
Package size (mm)	860*860*380				1000*1000*380
Panel size (mm)	800*800*30				950*950*30
Net weight(kg)	29				38
Pipe size	ZG3/4" (DN20)				

Hide Ceiling Fan Coil Unit

It Is Water System, Heating And Cooling Function



Parameter



Model Name: NL-FP		34HC	51HC	68HC	85HC	105HC	136HC	170HC	204HC	238HC
Air volume (m³/h)	High	340	510	680	850	1020	1360	1700	2040	2380
	Middle	260	390	520	650	780	1040	1290	1580	1820
	Low	180	270	360	450	530	710	890	1060	1240
Cooling capacity(W)	High	1800	2700	3600	4500	5400	7200	9000	10800	12600
	Middle	1620	2450	3240	4050	4850	6480	7980	9580	11200
	Low	1430	1990	2650	3220	3820	5140	6400	7480	8960
Heating capacity (w)	High	2700	4050	5400	6750	8100	10800	13500	16200	18900
	Middle	2450	3680	4860	6120	7275	9980	11960	14200	16520
	Low	2160	3240	4300	5200	6400	8600	9200	10800	12960
Conventional type noise dB(A)		≤35	≤36	≤38	≤40	≤43	≤44	≤45	≤46	≤49
High static press noisiness dB(A)		≤39	≤41	≤43	≤45	≤48	≤49	≤50	≤52	≤54
Input power(w)	Standard type	41	54	65	82	98	132	168	206	247
	Overpressure type	45	58	76	89	110	165	195	228	273
Outlet static press of unit (Pa)		12Pa,30Pa,50Pa								
Electric power		Signal phase 220v 50Hz								
thermal sink		louvered aluminum thermal sink, spacing of fins is 2.2mm								
No. of wind wheel(n)	2	2	2	2	2	2	3	4	4	
	Model	3-row aluminum								
	Structure model	copper stringing roll aluminum fin								
Heat exchanger	working pressure	1.2Mpa								
	water pipe branching	DN20 pipe								
	condensed water	DN20 pipe								
	connecting hose	DN20 pipe								
water volume (kg/h)		350	480	680	780	910	1140	1270	1320	1460
hydraulic resistance (kpa)		15	20	30	35	45	35	35	38	40
Weight of unit(kg)		16	19	21	22	23	25	35	38	45

Floor Standing Fan Coil Unit

It Is Water System, Heating And Cooling Function



Parameter

Model Name		FP-34LM	FP-51LM	FP-68LM	FP-85LM	FP-102LM
Nominal air volume (m³/h)	High	340	510	680	850	1020
	Middle	260	390	520	650	780
	Low	180	270	360	450	530
Cooling capacity(W)	High	1800	2700	3600	4500	5400
	Middle	1620	2450	3240	4050	4850
	Low	1430	1990	2650	3220	3820
Heating capacity (w)	High	2700	4050	5400	6750	8100
	Middle	2450	3680	4860	6120	7275
	Low	2160	3240	4300	5200	6400
Conventional type noise dB(A)		≤35	≤36	≤38	≤40	≤43
High static press noisiness dB(A)		≤39	≤41	≤43	≤45	≤48
Input power(w)	Standard type	41	54	65	82	98
	Overpressure type	45	58	76	89	110
Outlet static press of unit (Pa)			12Pa,30Pa,50Pa			
Electric power			Signal phase 220v 50HZ			
thermal sink			louvered aluminum thermal sink, spacing of fins is 2.2mm			
No. of wind wheel(n)		2	2	2	2	2
Heat exchanger	Model	3-row aluminum				
	Structure model	copper stringing roll aluminum fin				
	working pressure	1.2Mpa				
	water pipe branching	DN20 pipe				
condensed water connecting hose			DN20 pipe			
water volume (kg/h)		350	480	680	780	910
hydraulic resistance (kpa)		15	20	30	35	45
Weight (kg)	Horizontal concealed(WA)	16	19	21	22	23

Model Name		FP-136LM	FP-170LM	FP-204LM	FP-238LM	
Nominal air volume (m³/h)	High	1360	1700	2040	2380	
	Middle	1040	1290	1580	1820	
	Low	710	890	1060	1240	
Cooling capacity(W)	High	7200	9000	10800	12600	
	Middle	6480	7980	9580	11200	
	Low	5140	6400	7480	8960	
Heating capacity (w)	High	10800	13500	16200	18900	
	Middle	9980	11960	14200	16520	
	Low	8600	9200	10800	12960	
Conventional type noise dB(A)		≤44	≤45	≤46	≤49	
High static press noisiness dB(A)		≤49	≤50	≤52	≤54	
Input power(w)	Standard type	132	168	206	247	
	Overpressure type	165	195	228	273	
Outlet static press of unit (Pa)			12Pa,30Pa,50Pa			
Electric power			Signal phase 220v 50HZ			
thermal sink			louvered aluminum thermal sink, spacing of fins is 2.2mm			
No. of wind wheel(n)		2	2	2	2	
Heat exchanger	Model	3-row aluminum				
	Structure model	copper stringing roll aluminum fin				
	working pressure	1.2Mpa				
	water pipe branching	DN20 pipe				
condensed water connecting hose			DN20 pipe			
water volume (kg/h)		1140	1270	1320	1460	
hydraulic resistance (kpa)		35	35	38	40	
Weight (kg)	Horizontal concealed(WA)	25	35	38	45	

Cabinet Vertical Fan Coil Unit

It Is Water System, Heating And Cooling Function



Parameter



Model Name	FP-136LZ(2P)	FP-170LZ(3P)	FP-204LZ(5P)
Air volume (m³/h)	High	1360	1700
	Middle	1100	1370
	Low	880	1170
Cooling capacity(W)	High	7400	8500
	Middle	5920	7270
	Low	4810	6120
Heating capacity (w)	High	11100	12750
	Middle	8880	11000
	Low	7220	9400
Noise db(A)	<50	<56	<56
Electric power (W)	45	55	100
Backwater temperature for cold water		7°C~12°C	
Backwater temperature for heat water		65°C~60°C	
Power(V/HZ)		Single-phase power supply 220v、50Hz	
Water main	ZG 3/4"	ZG 3/4"	ZG 3/4"
Size L×W×H	485×290×1680	520×285×1755	600×310×1900
Weight of unit(kg)	38	42	48

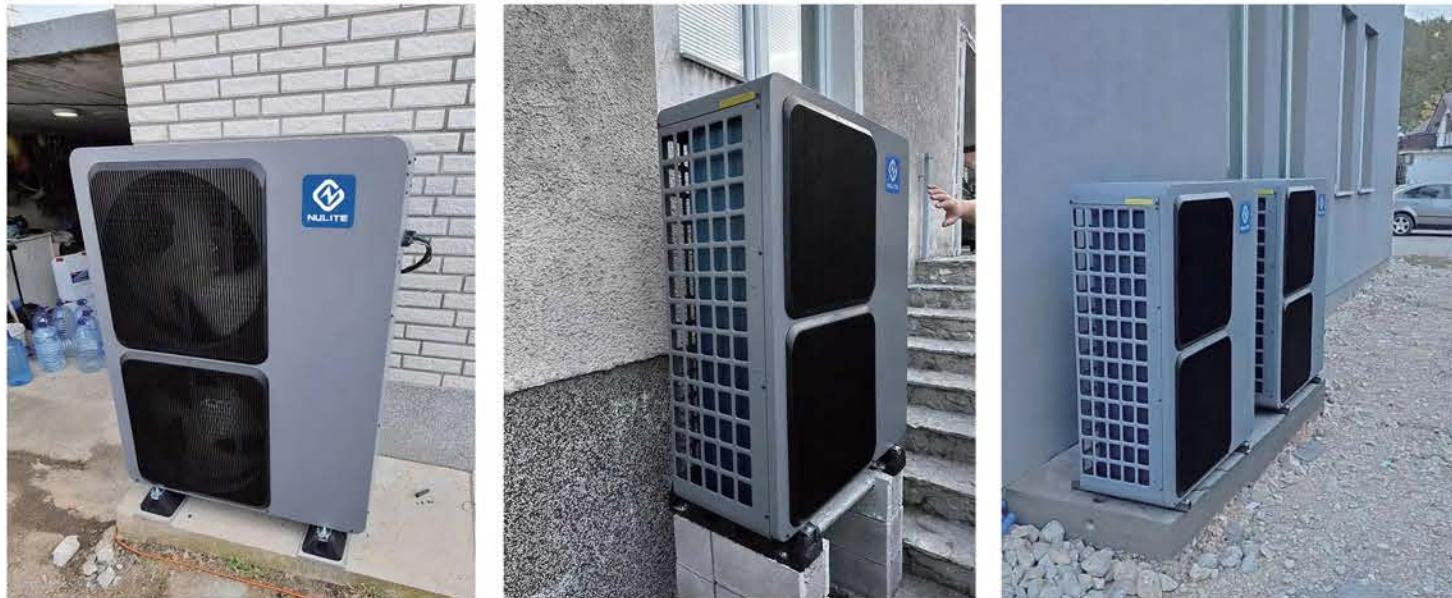
House Heating Case I



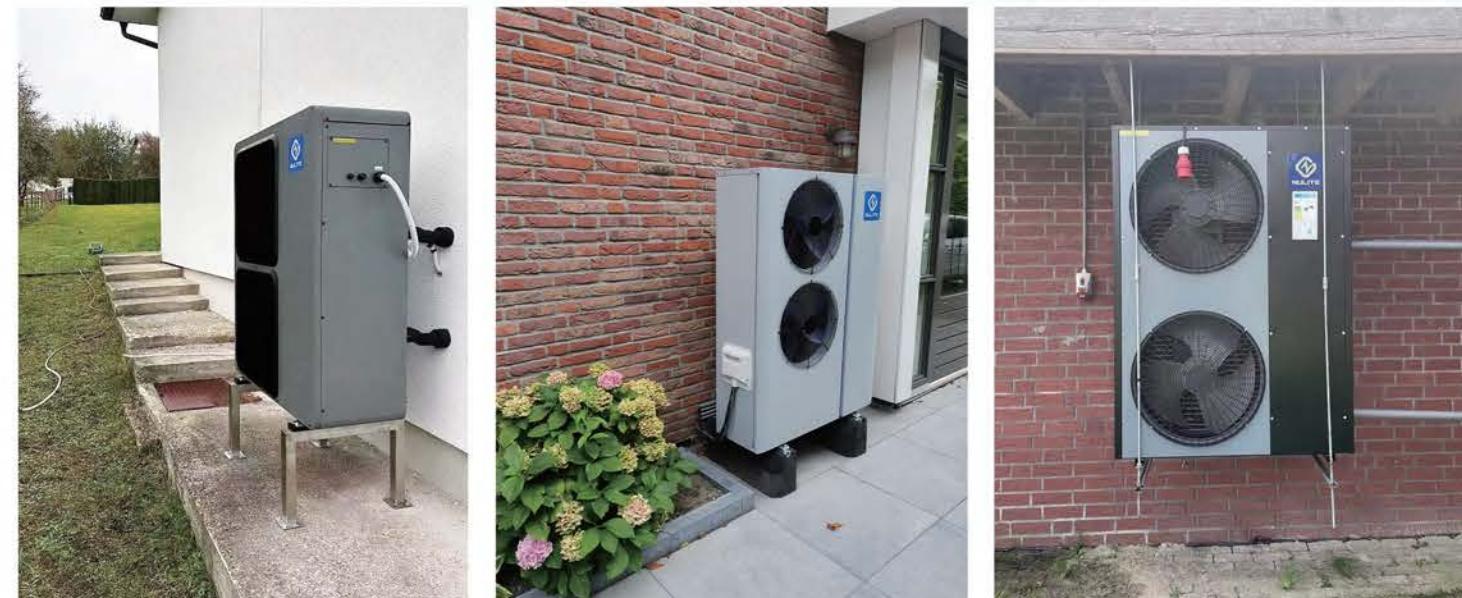
House Heating Case II



House Heating Case III



House Heating Case IV



House Heating Case VII



Domestic Hot Water Case



Swimming Pool Heating Case I



Swimming Pool Heating Case II



Commercial Project Case I



Commercial Project Case II

