POWER WORLD

THE POWER TO PROMOTE WORLD DEVELOPMENT!

POWER WORLD MACHINERY EQUIPMENT CO.,LTD.

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POWER WORLD

RENEWABLE ENERGY SOLUTION

Air Source Heat Pump | HydroBox | Water Tank

2023 PRODUCT CATALOGUE

POWER WORLD

THE BEST ENERGY SOLUTION PROVIDER

CONTENTS

ABOUT POWER WORLD

Background

POWER WORLD Machinery Equipment Co., Ltd. was established in 2004, focusing on heat pump for 18 years, listed company with stock code 870092.

POWER WORLD is a high-tech enterprise focusing on the R&D,production, and sales of air source heat pump products. The headquarter is located in Shenzhen, a developed commercial city. The factory is located in Dongguan, a prosperous manufacturing industry, and there are branches in various places. The main products include air source EVI DC Inverter house heat pumps, swimming pool heat pumps, hot water heat pumps, 80℃ high-temperature hot water heat pumps, industrial and agricultural heat pump dryers, etc. Among them, the export volume of EVI DC inverter house heat pump and swimming pool heat pump has always been among the best, ranking first in China for many years.

- Top 10 Air Source Heat Pump Brands in China
- Top 10 brands of water heaters in Guangdong
- Top 10 outstanding brands in China's heat pump industry
- Outstanding industrial and agricultural drying brands in China's heat pump industry
- Outstanding contribution unit of coal-to-clean energy
- Air source Northern heating demonstration award in China
- "Leading Brand in China's Heat Pump Industry" for 6 consecutive years.
- China Home Appliance Industry "Plug" Award
- National High-tech Enterprise
- Leading Brand of air source heat pumps in China

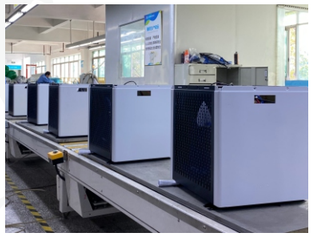
40,000 m² **500+** **400+**

Factory Advantages

POWER WORLD has strong technical and R&D strength, a complete heat pump industry chain, an industrial park of 40,000 square meters, 8 flexible production lines, an annual output of more than 100,000 sets of heat pump units, and 4 comprehensive laboratories for air source heat pumps, and the comprehensive laboratory complies with EU EN14511 standard, and laboratory performance experiments meet national GMPI standards. The scale, technology, and quantity are ahead of the industry. It is one of the largest air source heat pump manufacturers in China.

Technology Strength

We always focus on technological innovation and quality management. At present, our company has 35 senior technical engineers and 500+ experienced production workers and has obtained 400+ product patents. The products have passed CE, IEC, ERP, SAA, CB, ROHS, MCS, and other certifications, and passed the European EN14825 and EN14511 energy efficiency certificates. The EHPA requirements are enforced. In addition, because our heat pumps have the advantages of safety, high efficiency, environmental protection, low energy consumption, etc., POWER WORLD has become an energy solution enterprise recommended by the Chinese government to replace traditional boiler projects.



Market Strategy

After more than ten years of technological innovation and market strategy development, POWER WORLD's products are not only popular in China as the Top 10 leading brands in China's air source heat pump industry but also in more than 60 countries and regions and have established more than 1000 perfect sales and service networks around the world, providing customers with professional and competitive price energy solutions.

Company Vision

Build a world-class brand enterprise and become a power to promote world development. POWER WORLD has been focusing on continuous technological innovation to improve the quality of products and services, and is committed to providing customers with high-quality air source products and the best energy solutions.

FOUR COMPREHENSIVE LABORATORIES

Power world has 4 comprehensive laboratories that meet the EU EN14511 standard, leading the industry in scale, technology and quantity.

CERTIFICATES & AWARDS

The following certificates only represent some of POWER WORLD.

CORPORATE HISTORY

2004

POWER WORLD was established, research and development, production and sales of air source heat pumps.

2005 — 2006

Obtained more than 40 patents.

Recognized as a high-tech enterprise and independent innovation product in Shenzhen.

2007 — 2008

Obtained ISO9001:2000 quality management certification.

Obtained CCTV, Guangdong Satellite TV, Shenzhen City, and other authoritative media reports, the top 200 most growing enterprises.

2009 — 2010

Obtained the EU CE, China Compulsory Certification 3C Certification, and other authoritative certifications;
Has 350 service outlets nationwide.

2011 — 2012

Optimized and increased air source testing equipment, improved laboratory testing capabilities; Refreshed the record of double sales compared to 2010;

The first batch of shortlisted national energy-saving projects.

2013 — 2014

Won the most potential Shenzhen brand honorary title of "Shenzhen Famous Brand";
Won the 2014 China Home Appliance Industry "Plug" Award.

2015 — 2016

Won the honorary title of "National High-tech Enterprise";

The product passed the energy-saving certification;

Won the honorary title of "Top Ten Brands of Guangdong Water Heaters", on November 29th Dongguan Branch of POWER WORLD was established and became a listed company(New OTC Market), stock code 870092.

2017 — 2018

Won the "2017 Observing Contract and Valuing Credit" award;

Won the five-star after-sales service system certification;

Won the "Industry Leading Brand" award by China Heat Pump Association;

Power World and Danfoss reached a "strategic cooperation";

Obtained agricultural machinery subsidies for drying products;

2020 — 2022

Won the Excellent Industrial and Agricultural Drying Brand in China's Heat Pump Industry;

Consecutively Recognized as "China's High-tech Enterprise";

Won the Outstanding Brand Award in China's Drying Industry;

Won the China Heat Pump Outstanding Contribution Award;

Won the China Heat Pump Association Industry Leading Brand Award.

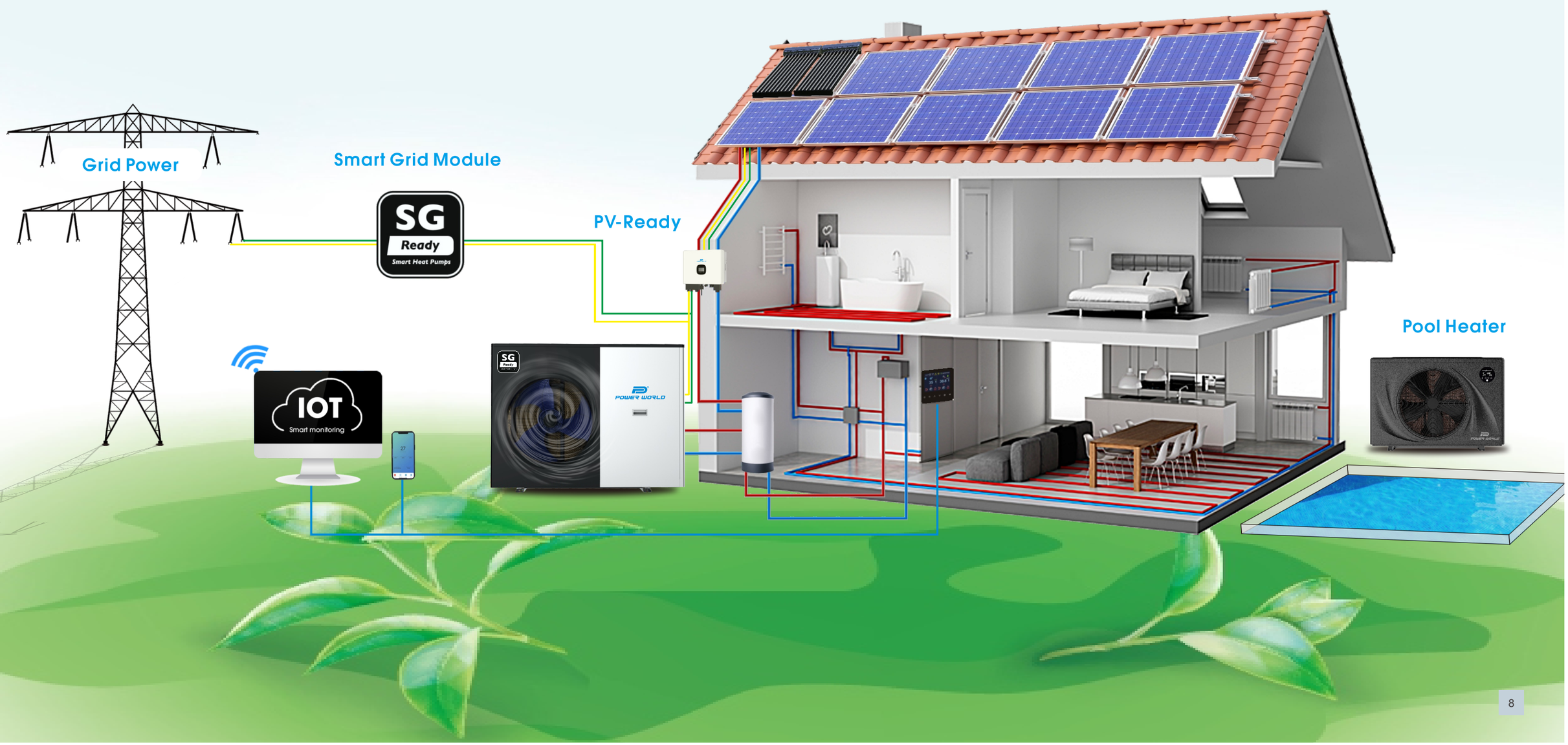
R32 ECO-FRIENDLY & EFFICIENT

Zero Carbon

IoT

Bundesamt für Wirtschaft und Ausfuhrkontrolle

MCS



POWER WORLD

SG Ready
Smart Heat Pumps

Bundesamt
für Wirtschaft und
Ausfuhrkontrolle

Easylife Series

EVI DC INVERTER HEAT PUMP
Monoblock Type

MCS

WiFi

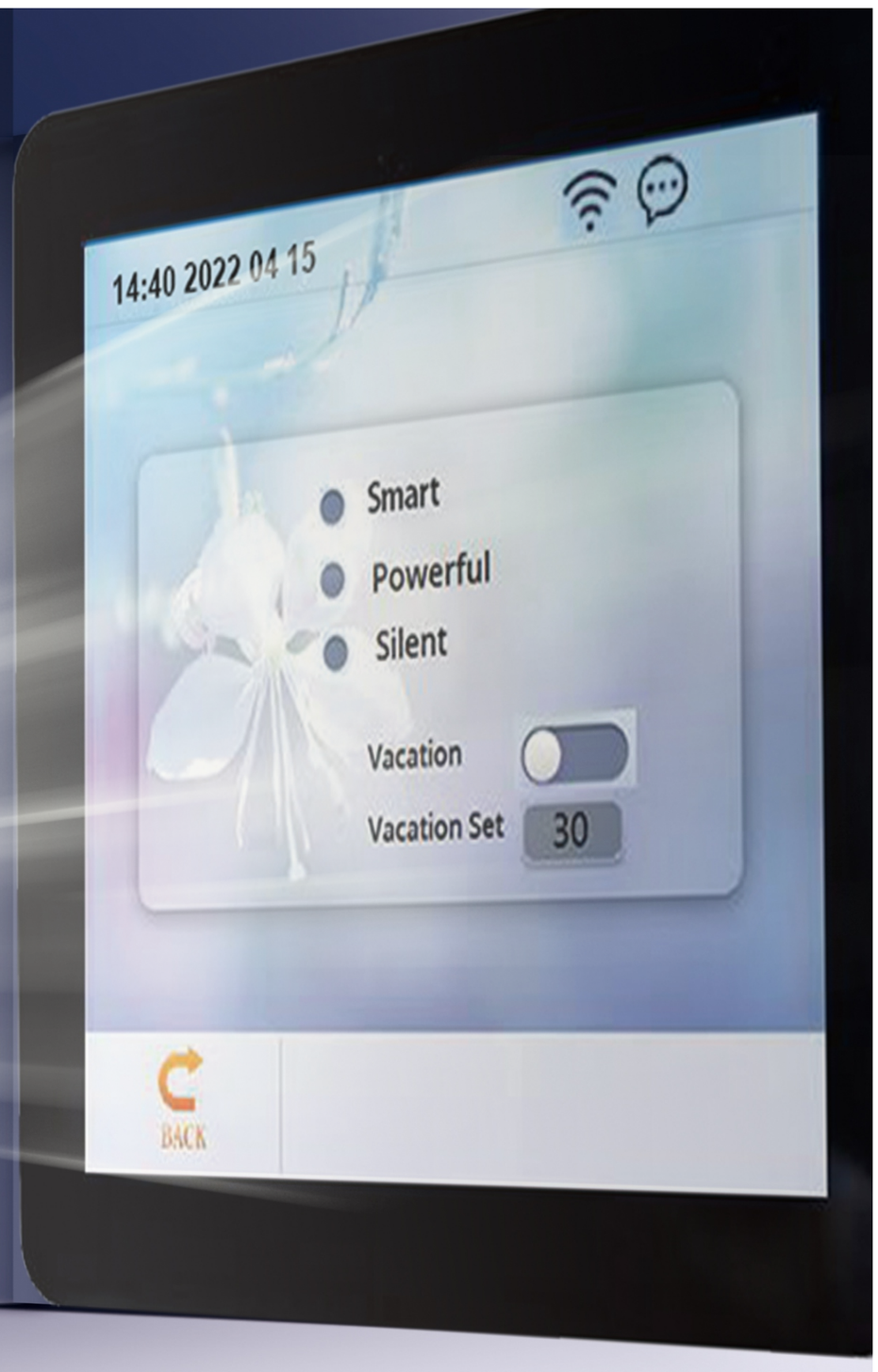
Vacation Mode

AMBIENT-30°C TEMPERATURE

- Smart Mode
- Powerful Mode
- Silent Mode

ONE MACHINE

FOR MULTIPLE PURPOSES



- Only Heating
- Only Cooling
- Only DHW
- Heating+DHW
- Cooling+DHW

EASYLIFE SERIES

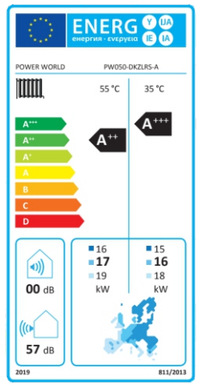
SCREWLESS DESIGN · EVI Technology · R32 NEW REFRIGERANT GAS

EasyLife Series DC Inverter EVI Heat Pumps is a multifunctional unit of heating, cooling and DHW. It creatively combines environmentally friendly R32 refrigerant with extremely cost-effective EVI full frequency conversion technology, especially the A+++ ERP energy label, which can operate stably in extremely cold areas of -30°C. The color LCD control panel, free wifi function, and ±0.1°C precise temperature control bring the ultimate smart home experience to users.

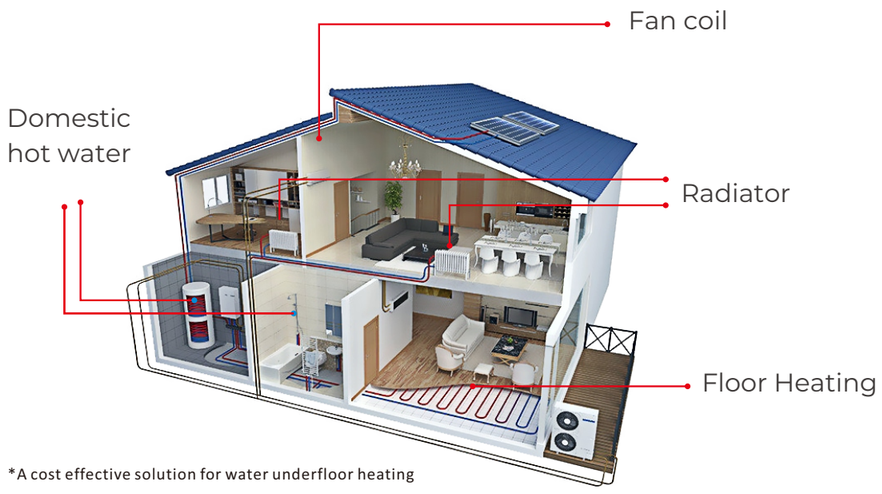
Energy label A+++ tested by TUV

TWO ELECTRIC HEATERS · INTELLIGENT DEFROSTING · 4.72 SCOP · A+++

- Energy label A+++
- SCOP up to 4.72
- Intelligent defrosting
- Two electric heater control ports
- Multiple noise reduction processes



MONOBLOCK HEAT PUMP APPLICATION SCENARIO



*A cost effective solution for water underfloor heating

MODEL	PW030 -DKZLRS-A	PW040 -DKZLRS-A	PW050 -DKZLRS-A	PW060 -DKZLRS-A	PW080 -DKZLRS-A	PW100 -DKZLRS-A
Heating Condition: Ambient Temp. (DB/WB): 7°C/6°C, Water temperature(inlet/outlet): 30°C/35°C						
Heating capacity range (kw)	1.57~8.40	4.40~13.00	5.9~18.2	7.5~23.0	10.2~28.0	12.8~35.0
Heating input range (kw)	0.32~1.87	0.90~3.02	1.20~4.11	1.53~5.23	2.07~6.36	2.61~7.99
Current range (A)	1.42~8.30	1.39~4.68/ 4.12~13.8	1.86~6.37/ 5.49~18.8	2.37~8.11	3.70~11.4	4.67~14.3
Cop range	4.49~4.91	4.30~4.90	4.43~4.92	4.40~4.90	4.40~4.92	4.38~4.90
Cooling Condition: Ambient Temp. (DB/WB): 12°C/7°C, Water temperature(inlet/outlet): 35°C/24°C						
Cooling capacity range (kw)	0.99~6.22	2.80~8.20	3.81~11.53	4.73~14.6	6.54~19.8	8.13~24.6
Cooling input power(kw)	0.29~2.18	0.85~3.31	1.11~4.05	1.39~5.14	1.92~6.97	2.42~8.75
Current range (A)	1.28~9.67	1.32~5.13/ 3.89~15.1	1.72~6.28/ 5.08~18.5	2.16~7.97	3.43~12.5	4.33~15.6
Eer range	2.85~3.41	2.48~3.29	2.85~3.43	2.84~3.40	2.84~3.40	2.81~3.36
DHW Condition: Ambient Temp. (DB/WB): 7°C/6°C, Water temperature(inlet/outlet): 15°C/55°C						
Heating capacity range (kw)	1.28~6.81	3.52~10.50	4.80~14.72	6.1~18.5	12.3~20.4	13.6~22.6
Heating input range (kw)	0.31~2.13	0.88~3.39	1.17~4.60	1.53~5.97	2.8~5.37	3.09~5.95
Current range (A)	1.38~9.45	1.36~5.26/ 4.03~15.5	1.82~7.15/ 5.35~21.1	2.37~9.26	5.0~9.6	5.52~10.6
Cop range	3.2~4.1	3.1~4.0	3.2~4.1	3.1~4.0	3.8~4.4	3.8~4.4
Erp level (35°c)	A+++	A+++	A+++	A+++	A+++	A+++
Erp level (55°c)	A++	A++	A++	A++	A++	A++
Refrigerant	R32					
Power supply	230V/1Ph/ 50-60Hz	380V-400V/3Ph/50-60Hz or 220V-230V/1Ph/50-60Hz		380V-400V/3Ph/ 50-60Hz		
working area	-30~43°C					
Water circulation(m^3/h)	1.4	2.2	3.1	4.0	4.8	6
Water pressure drop(kpa)	31	25	35	45	40	50
Ip grade(level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Anti-electric shock rate	I	I	I	I	I	I
Noise (dB(A))	≤53	≤55	≤57	≤58	≤62	≤66
Net weight/Gross weight(kg)	95	105	150/165	155/170	210/220	230/240
Diameter of pipe (mm)	DN25	DN25	DN25	DN25	DN32	DN32
Body size(W*D*H) (mm)	970×475×820	1100×475×985	1050×480×1330	1050×480×1330	1160×500×1580	1160×500×1580
Loading quantity (20GP/40GP/40HQ)	44/88/88	44/88/88	22/42/42	22/42/42	18/40/40	18/40/40
Operating water temperature (°c) DHW	9~55°C					
Operating water temperature (°c) Heating	9~55°C					
Operating water temperature (°c) Cooling	7~35°C					

Note:

The data above is for reference only,
Please refer to the nameplate on the unit if for more specific data.

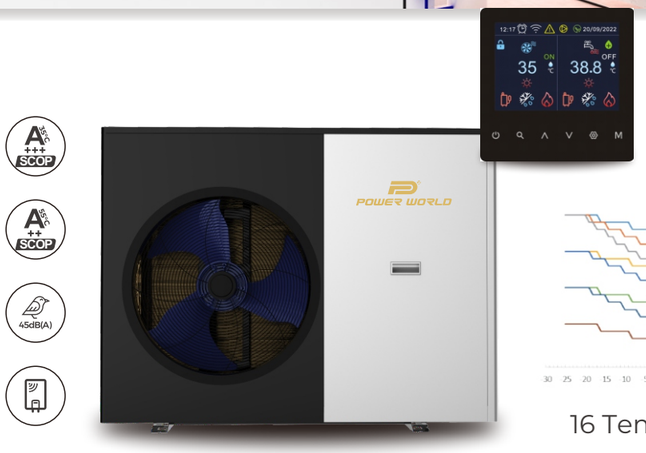
POWER WORLD

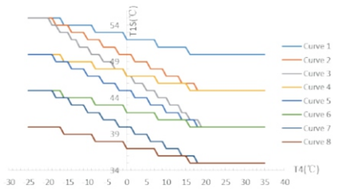
Easylife Plus Series

EVI DC INVERTER HEAT PUMP
Monoblock Type

EASYLIFE PLUS SERIES HEAT PUMP

The EASYLIFE PLUS Series heat pumps can be used in new buildings and retrofits, both residential and commercial buildings. It is a year-round heat source for heating, cooling and domestic hot water heating purpose.





16 Temp. curves inside

Ecological refrigerant
2 Zone Temp. Control
Smart Grid Ready
Compatiable with E-Boiler
Built in 3Kw Backup E-heater
cascade Control , Maximum 8 unit
Panasonic Brand EVI Compressor
15 languages

Wifi As Standard
Fast hot water
IOT CS
Built-in SLDC Pump
Maximum LWT Reaches 60℃
High Temp. Sterilization
Allowable working Ambient Temp. Range from -30~43℃

EVI DC INVERTER HEAT PUMP FOR COOLING HEATING AND DHW (R32)

Model	PW030 -DKZLRS-D/S	PW040 -DKZLRS-D/S	PW040 -DKZLRS-D	PW050 -DKZLRS-D	PW060 -DKZLRS-D
Heating Condition: Ambient Temp. (DB/WB): 7˚C/6˚C, Water temperature(inlet/outlet): 30˚C/35˚C					
Heating Capacity Range (kW)	3.2~8.0	4.8~12.0	4.8~12.0	7.3~18.0	8.8~22.0
Heating Power Input Range(kW)	0.61~1.88	0.93~2.88	0.93~2.88	1.36~4.14	1.67~5.15
Cop range	4.26~5.23	4.17~5.18	4.17~5.18	4.35~5.36	4.27~5.28
DHW Condition: Ambient Temp. (DB/WB): 7˚C/6˚C, Water temperature(inlet/outlet): 15˚C/55˚C					
Heating Capacity Range (kW)	2.9~7.2	4.3~10.8	4.3~10.8	6.0~15.0	7.4~18.5
Heating Power Input Range(kW)	0.64~1.97	0.97~3.03	0.97~3.03	1.29~4.00	1.63~5.05
COP Range	3.65~4.54	3.56~4.45	3.56~4.45	3.75~4.64	3.66~4.55
Heated water output (L/H)	154	232	232	322	397
Cooling Condition: Ambient Temp. (DB/WB): 35˚C/24˚C, Water temperature(inlet/outlet): 12˚C/7˚C					
Cooling Capacity Range (kW)	2.5~6.2	3.3~8.2	3.3~8.2	5.1~12.6	6.0~15.0
Cooling Power Input Range(kW)	0.79~2.27	1.06~3.11	1.06~3.11	1.58~4.53	1.88~5.49
EER Range	2.73~3.15	2.64~3.10	2.64~3.10	2.78~3.23	2.73~3.19
ErP Level (35°C)	A+++	A+++	A+++	A+++	A+++
ErP Level (55°C)	A++	A++	A++	A++	A++
Power supply	230V/1Ph/50Hz/60Hz		380V/3Ph/50-60Hz		
Diameter of pipe (mm)	DN25	DN25	DN25	DN25	DN25
Water Flow(m3/h)	1.2	1.5	1.5	2.5	2.8
Water Pressure Drop (max) kPa	30	35	35	40	45
Water pump type	Adjustable DC inverter				
Max water head(m)	9	9	9	12	12
Auxiliary electric heater(kW)	3	3	3	3	3
Expansion vessel(L)	2	5	5	5	5
Safety valve(MPa)	0.3	0.3	0.3	0.3	0.3
Noise dB(A) at 1m	≤45	≤48	≤48	≤53	≤55
Net Weight (kg)	105	115	115	140	140
Net Dimension (L/W/H) mm	1150×460×820	1150×460×960	1150×460×960	1260×480×1060	1260×480×1060
Operation Ambient Temp. (°C)	-30~43				
Operating water temperature (°C)	20~55(DHW)				
Operating water temperature (°C)	20~60(Heating)				
Operating water temperature (°C)	7~35(Cooling)				

REMARK:

Heating working condition: Inlet water temperature 30°C, Outlet water temperature 35°C, Dry bulb temperature 7°C, Wet bulb temperature6°C.
Cooling working condition:Inlet water temperature 12°C, Outlet water temperature 7°C, Dry bulb temperature 35°C, Wet bulb temperature 24°C.
DHW working condition: Inlet water temperature 15°C, Outlet water temperature 55°C, Dry bulb temperature 7°C, Wet bulb temperature 6°C.

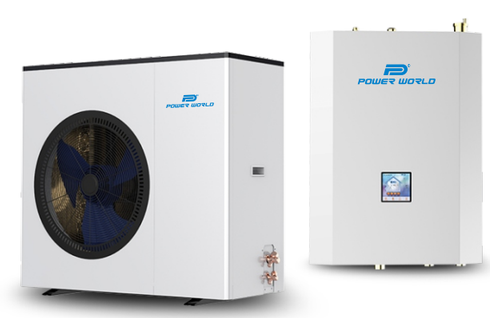
R32

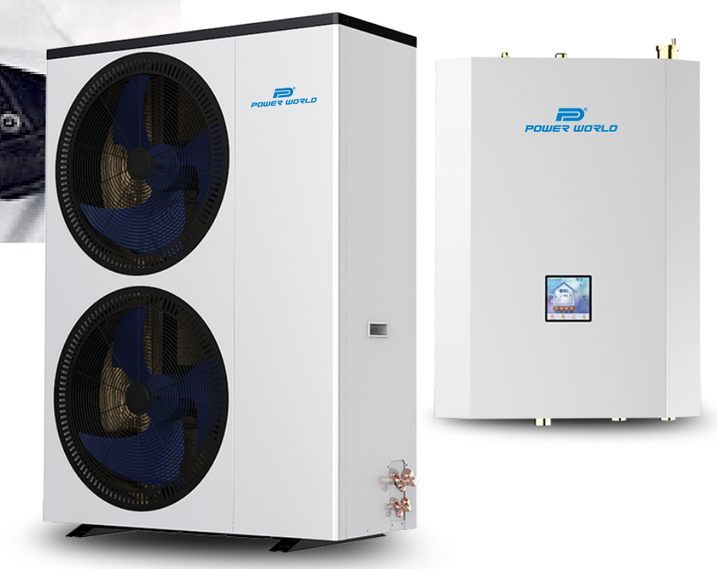
DC Inverter

POWER WORLD

ECO Home Series

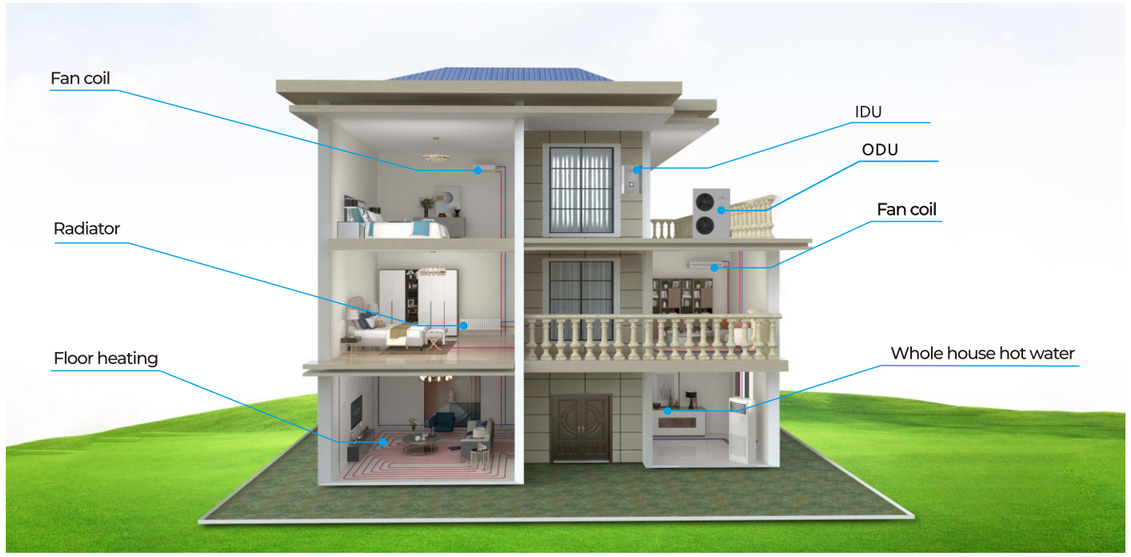
SPLIT EVI DC INVERTER HEAT PUMP (R32)





ECO HOME SERIES

SPLIT EVI DC INVERTER HEAT PUMP (R32)



PRODUCT FEATURES

The ECO HOME SERIES Split EVI DC Inverter Units is designed specially for European Market where there is a demand for Space heating/Cooling + Hot water. This unit can realize space heating &Sanitary hot water supply through terminal units, like the Fan coil unit, Floor coil & Radiator. It is widely applicable to small & medium-sized apartment, large-sized villa etc.

INDOOR UNIT

STANDARD EQUIPMENT


Built In Dc Inverter Circulation Pump


Plate Heat exchanger


Built-in Auxiliary E-Heater

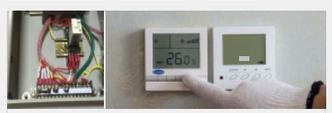

Built-in 2 pcs of 2 Way valve(Honeywell)


Built in Expansion Tank


Built-in safety valve


exhaust valve


Flow sensor


With Additional Terminal Block to connect with other equipment,Like Room thermostat.

OUTDOOR UNIT


Panasonic Twin-rotary EVI Compressor


BLDC Motor

8~12.6kw

8.6~22kw

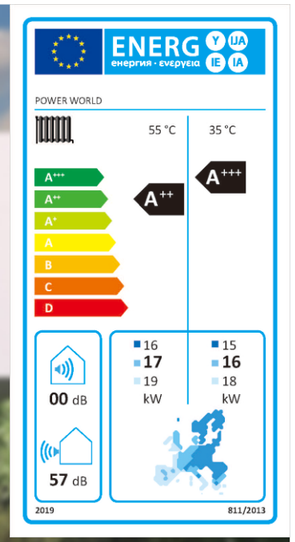
Split design with Indoor unit&Outdoor unit, Easy for installation, Screw-less appearance, Modern compact structure, With advanced remote diagnostic system to make sure ECO HOME Series Heat pump an ideal proposition for Owners of House.

PRODUCT ADVANTAGES

BRAND NEW UPGRADE R32 REFRIGERANT

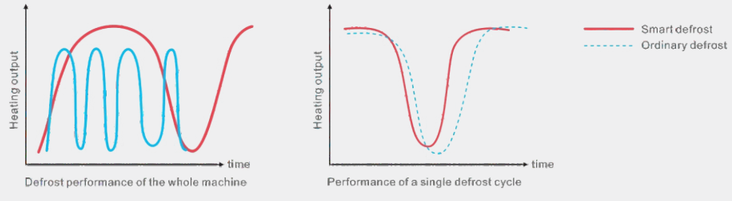
A+++ ENERGY LABEL

The whole series of products are strictly comply with EN14511 standard,EUROVENT Energy efficiency Class A and SCOP Class A+++ (35C),SCOP CLASS A++(55C) With EN14825 standard



INTELLIGENT DEFROST SYSTEM

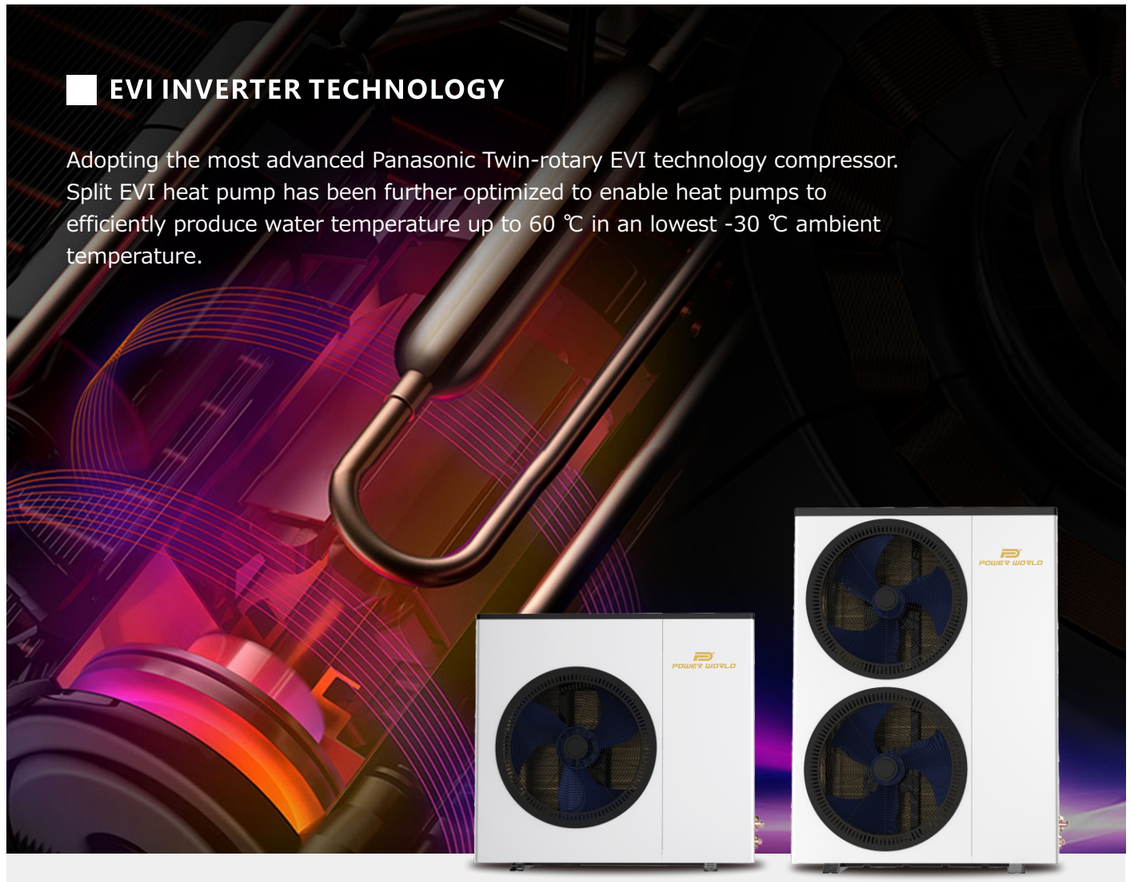
Equipped perfect Automatic system with reverse valve inside for defrosting which can let the units stably work under ambient temperature of -30 Centigrade. At the same time, it will make optimal decisions on whether it is time to defrost or not.In this way,the unit is able to minimize energy consumption.



PRODUCT ADVANTAGES

EVI INVERTER TECHNOLOGY

Adopting the most advanced Panasonic Twin-rotary EVI technology compressor. Split EVI heat pump has been further optimized to enable heat pumps to efficiently produce water temperature up to 60 ℃ in an lowest -30 ℃ ambient temperature.



SMART CONTROL

The intelligent controller is adopted to realize the linkage control between the heat pump unit and the terminal application end.The WIFI APP enables users to operate their units through a smart phone wherever and whenever they are.

DC INVERTER HEAT PUMP FOR COOLING HEATING AND DHW(R32) — OUTDOOR UNIT

PRODUCT MODEL		PW030 -DKZLRS-C/S	PW040 -DKZLRS-C/S	PW050 -DKZLRS-C/S	PW040 -DKZLRS-C	PW050 -DKZLRS-C	PW060 -DKZLRS-C
Heating	Heating Capacity Range (kW)	4.2~8.0	6.5~12.6	8.6~18.0	6.5~12.6	8.6~18.0	10.5~22
	Heating input Range (kW)	0.91~1.89	1.41~2.99	1.85~4.24	1.41~2.99	1.85~4.24	2.27~5.2
	COP Range	4.23~4.64	4.21~4.62	4.25~4.65	4.21~4.62	4.25~4.65	4.23~4.63
Cooling	Cooling capacity Range (kW)	2.9~5.8	4.2~8.2	6.2~12.3	4.2~8.2	6.2~12.3	7.2~14.2
	Cooling input power(kW)	0.89~2.33	1.30~3.33	1.86~4.80	1.30~3.33	1.86~4.80	2.17~5.55
	EER Range	2.49~3.27	2.46~3.23	2.56~3.33	2.46~3.23	2.56~3.33	2.56~3.32
DHW	Heating Capacity Range (kW)	3.6~6.8	5.5~10.5	7.3~14.6	5.5~10.5	7.3~14.6	8.8~17.5
	Heating input Range (kW)	0.93~2.19	1.42~3.42	1.85~4.66	1.42~3.42	1.85~4.66	2.24~5.61
	COP Range	3.10~3.89	3.07~3.86	3.13~3.95	3.07~3.86	3.13~3.95	3.12~3.93
	Heated water output (L/H)	146	225	313	225	313	375
Refrigerant		R32					
Power supply		230V/1Ph/50-60Hz			380V/3Ph/50-60Hz		
Working area(℃)		-30~43					
IP Grade (Level of protection)		IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Anti-electric shock Rate		I	I	I	I	I	I
Noise (dB(A))		≤53	≤55	≤57	≤55	≤57	≤58
Net weight (kg)		85	95	135	95	135	140
Body size(W*D*H) (mm)		970×475×820	1030×475×970	1000×480×1380	1030×475×970	1000×480×1380	1000×480×1380
ErP Level (35℃)		A+++	A+++	A+++	A+++	A+++	A+++
ErP Level (55℃)		A++	A++	A++	A++	A++	A++
Compressor Brand		Panasonic					
Four-way valve		Sanhua					
Expansion valve		Sanhua					
Operating water temperature (℃) DHW		20~55					
Operating water temperature (℃) heating		20~55					
Operating water temperature (℃) cooling		7~35					

Remark:
Heating working condition: Inlet water temperature 30℃, Outlet water temperature 35℃, Dry bulb temperature 7℃, Wet bulb temperature6℃.
Cooling working condition:Inlet water temperature 12℃, Outlet water temperature 7℃, Dry bulb temperature 35℃, Wet bulb temperature 24℃.
DHW working condition: Inlet water temperature 15℃, Outlet water temperature 55℃, Dry bulb temperature 7℃, Wet bulb temperature 6℃.

DC INVERTER HEAT PUMP FOR COOLING HEATING AND DHW(R32) — INDOOR UNIT

Product model	PW040-DKZLRS-C	PW060-DKZLRS-C	PW040-DKZLRS-C	PW060-DKZLRS-C
Power supply	230V/1Ph/50-60Hz			
Water pump type	SHIMGE / Adjustable DC inverter			
Max water head(m)	9	12	9	12
Auxiliary electric heater(kW)	3	3	3	3
Expansion vessel(L)	2	5	8	5
Safety valve(MPa)	0.3	0.3	0.3	0.3
3-Way Valve			ACOL/DN25	
2-Way Valve	Honywell/DN25		/	/
Diameter of pipe (mm)	DN25			
Water pressure drop (kPa)	25	35	25	35
Body size(W*D*H) (mm)	700×520×272		740×520×312	
Net weight (kg)	35	40	38	42
Applicable Models	PW030-DKZLRS-C/S	PW050-DKZLRS-C/S	PW030-DKZLRS-C/S	PW050-DKZLRS-C/S
	PW040-DKZLRS-C/S	PW050-DKZLRS-C	PW040-DKZLRS-C/S	PW050-DKZLRS-C
	PW040-DKZLRS-C	PW060-DKZLRS-C	PW040-DKZLRS-C	PW060-DKZLRS-C

HEAT PUMP MANUFACTURER

THE POWER TO PROMOTE WORLD DEVELOPMENT!

HYDROBOX

Matching with the heat pump, making the installation more convenient!

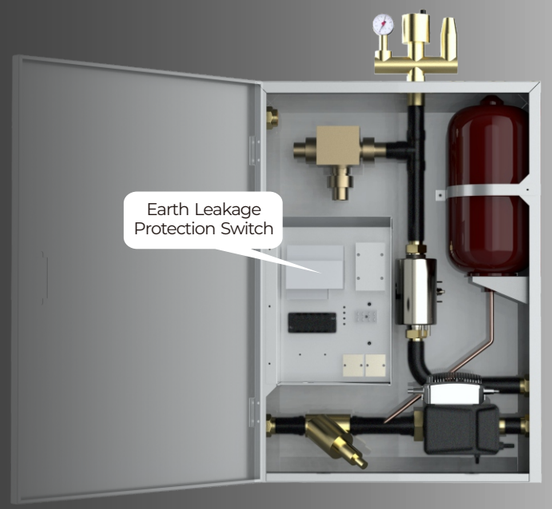
- Easy Installation &Maintenance
- Component Integration Design
- Safer and Durable
- Smart Home Control
- Avaiable for Floorheating, Radiator Fan Coil and Water Heating

POWER WORLD

HYDROBOX

PRODUCT MODEL	PW-03H/S	PW-03H	PW-05H/S	PW-05H
3-Way Valve	ACOL/DN25	ACOL/DN25	ACOL/DN25	ACOL/DN25
Filter	ACOL/DN25	ACOL/DN25	ACOL/DN25	ACOL/DN25
Electric Heater	3kW/220V	3kW/220V	3kW/220V	3kW/220V
DC Inverter Water Pump	Shimge	Shimge	Shimge	Shimge
Max water head(m)	12	12	12	12
Expansion Tank(L)	5L	5L	5L	5L
Diameter of pipe (mm)	DN25	DN25	DN25	DN25
Safety valve(MPa)	0.3	0.3	0.3	0.3
Leakage Switch(A)	Schneider/40A	Schneider/25A	Schneider/50A	Schneider/32A
Cabinet	Galvanized powder coated steel	Galvanized powder coated steel	Galvanized powder coated steel	Galvanized powder coated steel
Package	Splint/Carton	Splint/Carton	Splint/Carton	Splint/Carton
Power Supply(V)	230V/1Ph/50-60Hz	380V/3Ph/50-60Hz	230V/1Ph/50-60Hz	380V/3Ph/50-60Hz
Net Weight(kg)	30	30	30	30
Gross Weight(kg)	32	32	32	32
Net Dimension(mm)	700*500*220	700*500*220	700*500*220	700*500*220
Packing Dimension（mm）	760*540*260	760*540*260	760*540*260	760*540*260
Applicable Models	PW030/PW040(Single phase)	PW030/PW040(Three-phase)	PW050/PW060(Single phase)	PW050/PW060(Three-phase)
Loading Quantity	248/540	248/540	248/540	248/540

HYDROBOX

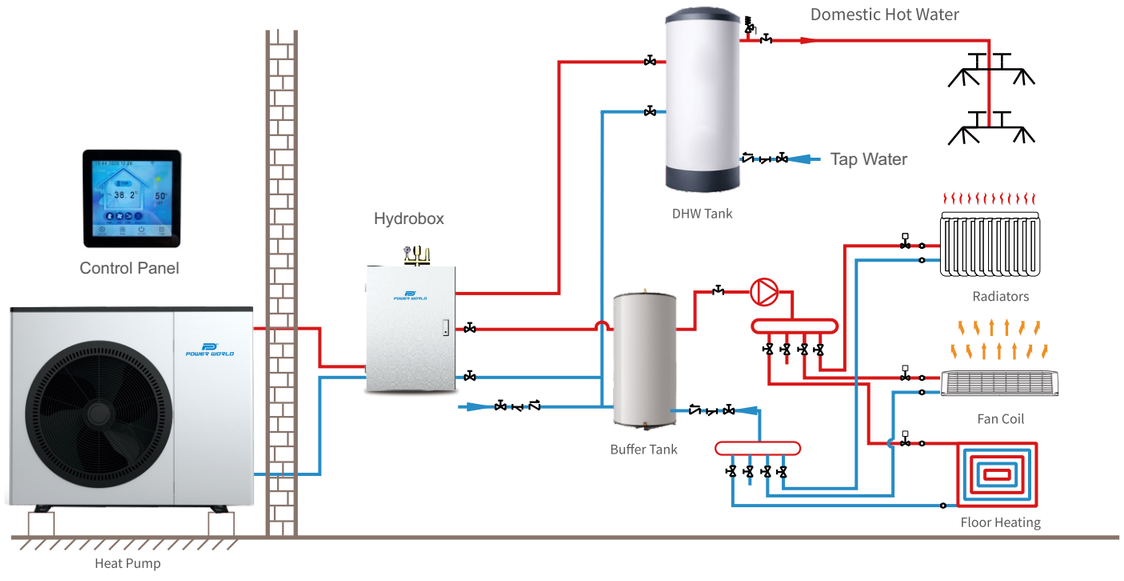


Power World's Hydrobox makes heat pump installation and maintenance easier. Hydrobox integrates water pumps, small expansion tank, valves, safety components, electric heater, and other components. When installing the heat pump system, the installer can connect the heat pump directly to the Hydrobox, which is very simple and convenient, even if you do not have a lot of experience, you can follow the instructions to complete the installation.

Safer and Durable

Component Integration Design

The Hydrobox integrates water pumps, valves, safety components, electric heater and other components. Compared with the traditional complex and cumbersome piping system layout, its installation area is small, about 0.4㎡; it saves installation time and costs; it can reduce human factors and environmental factor damage, and maintenance is simple.



Easy Maintenance

Hinged door design, with a door lock, easy to open the hinged door for maintenance and inspection repairs.

Smart Home Control

The Hydrobox system can communicate with the heat pump unit for smart home control.

Electric Heater

Use pipeline electric heating, connect water and electricity to directly produce hot water. Cylindrical pipeline structure, 360° comprehensive heating, long service life, high temperature, high-pressure resistance, salt and alkali resistance, not easy to deform.

Filter

Copper Y-strainer with drain valve. The screen area of the filter is larger than other ordinary filters. Set up a drain valve, which can be drained at any time, and the maintenance and operation are convenient and simple.

Expansion Tank

Using the expansion tank of the well-known Italian brand AQUASYSTEM. The new airbag structure realizes the separation of water and tank, which not only reduces the pollution of water quality but also slows down the corrosion of the tank. It adopts a one-time pressing and forming flange structure, and there is no welding point between the flange and the connecting screw. Unlike many domestic expansion tanks, the screw is welded on the flange, which is not only poor in force but also easy to rust.

SHIMGE Inverter DC Water Pump

Intelligent variable frequency circulating pump, three-speed speed regulation. A well-known brand in China, using a permanent magnet motor, and intelligent frequency conversion control, the motor stator is completely shielded, and the rotating parts are made of ceramic bearings and ceramic shafts, which are wear-resistant and lubricated by clean water, which can cool the motor and reduce noise. Full pump head operation is not overloaded, and as long as it is used correctly, it is generally free of maintenance.

3-Way Valve

Using internationally renowned brand components. Compared with other 3-way valves, it takes up less space, is more reliable and durable, the working noise is low, and it can work stably in a high-temperature environment.

High Strength Metal Casing

The thickness of the sheet metal and the force of the structure are designed by 3D structural software simulation. At the same time, the inside of the unit involves a metal frame to ensure overall robustness and reliability.

POWER WORLD

Commercial Series

EVI DC INVERTER HEAT PUMP

AMBIENT -30℃ TEMPERATURE

COMMERCIAL SERIES

EVI Technology

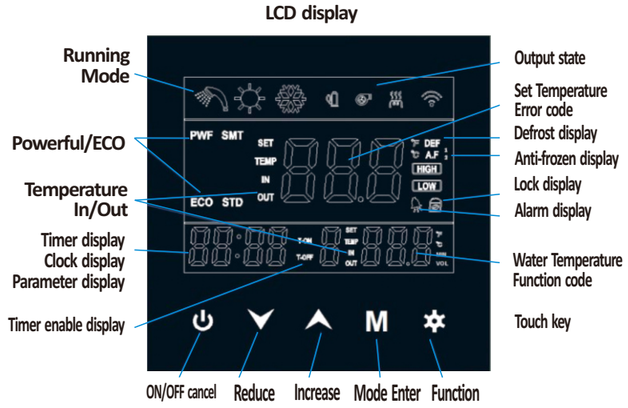
R410A NEW REFRIGERANT GAS

Commercial Series EVI DC Inverter Heat Pump combines eco-friendly R410A refrigerant and inverter EVI technology to produce 50°C hot water, it is applied for large buildings heating and cooling even at -30°C low temperature countries and areas.

INTELLIGENT DEFROSTING

4.6 COP

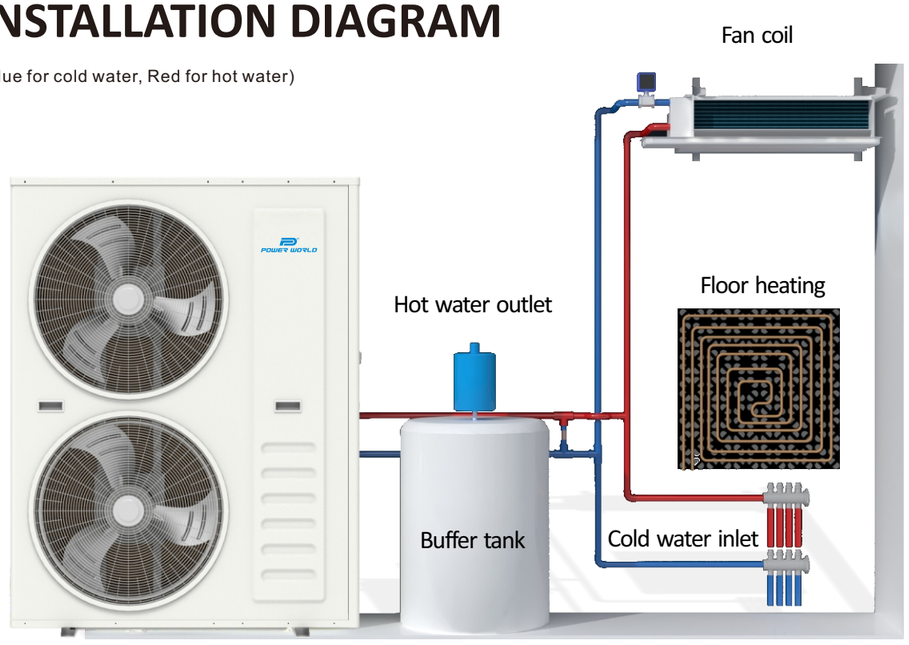
LCD display



- Heating Function
- Cooling Function

INSTALLATION DIAGRAM

(Blue for cold water, Red for hot water)



Model	PF-030 DC/E	PF-050 DC/NE	PW080-KFLRDC	PW100-KFLRDC	PW120-KFLRDC	PW150-KFLRDC	PW300-KFLRDC
Heating working condition: Water temperature(inlet/outlet) : 30°C/35°C, (DB/WB): 7°C/6°C.							
Heating capacity (kw)	7.4~12.3	11.7~20.5	12.6~25.3	13.2~27.6	15.5~35.2	19.0~43.4	38.7~87.8
Heating input range (kw)	1.5~3.3	2.4~5.6	2.6~6.9	2.7~7.5	3.2~9.6	3.9~11.8	7.86~23.8
Current range (A)	7.5~16.5	4.8~10.6	5.1~13.8	5.4~15.2	6.3~19.4	7.8~23.6	15.7~47.6
Cop range	3.69~4.9	3.67~4.88	3.67~4.85	3.68~4.89	3.67~4.84	3.68~4.87	3.69~4.92
Cooling working condition: Water temperature(inlet/outlet) : 12°C/7°C, (DB/WB): 35°C/24°C.							
Cooling capacity range (kw)	4.9~8.9	8.2~14.8	9.8~18.3	11.1~20.2	12.5~27.5	15.1~34.4	31.6~72.3
Cooling input power(kw)	1.5~3.7	2.5~6.0	2.99~7.43	3.42~8.24	3.8~11.1	4.6~13.9	9.6~29.2
Current range (A)	7.3~18.1	5.0~12.0	5.98~14.8	6.9~16.7	7.6~22.5	9.3~27.8	19.2~58.1
Eer range	2.41~3.27	2.47~3.28	2.46~3.28	2.45~3.25	2.47~3.29	2.47~3.28	2.48~3.29
Refrigerant	R410A						
Power supply	230V/1Ph /50-60Hz	380V/3Ph/50-60Hz					
Working area	-30~43°C						
Water circulation(m^3/h)	2.29	3.70	4.35	4.75	6.05	7.46	15.10
Water pressure drop(kpa)	25	30	46	46	50	56	60
Ip grade (level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Anti-electric shock rate	I	I	I	I	I	I	I
Noise (dB(A))	≤53	≤58	≤60	≤60	≤62	≤62	≤62
Net weight/Gross weight(kg)	140/150	170/180	205/215	205/215	300/310	400/420	700/730
Diameter of pipe (mm)	Dn25	Dn25	Dn25	Dn25	Dn32 (male thread)	Dn32 (male thread)	Dn65 (flange)
Body size(W*D*H) (mm)	1076×480×800	1050×480×1330	1050×480×1330	1050×480×1330	1300×580×1450	1020×980×1870	2000×1000×1900
Loading quantity (20GP/40GP/40	40/88/88	22/42/42	22/42/42	22/42/42	12/24/24	10/18/18	5/18/18
Erp level (35°c)	A++	A++	A++	A++	A++	A++	A++
Erp level (55°c)	A+	A+	A+	A+	A+	A+	A+
Compressor brand	Panasonic	Mitsubishi	GMCC	GMCC	Panasonic	Hitachi	Hitachi
Operating water temperature(°C) Heating	9~50°C						
Operating water temperature(°C) Cooling	7~35°C						

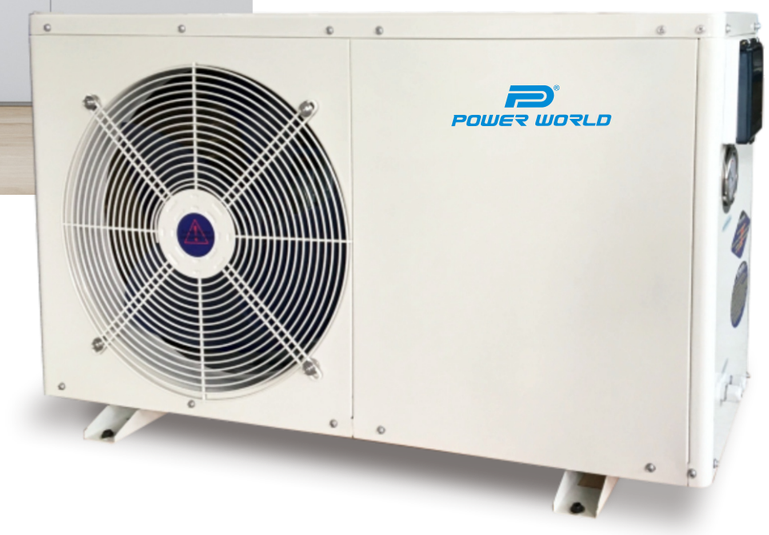
Note:

The data above is for reference only,
Please refer to the nameplate on the unit if for more specific data.

POWER WORLD

Residential Series

HOT WATER HEAT PUMP



Operating Temps
-7°C ~43°C

R410A Refrigerant

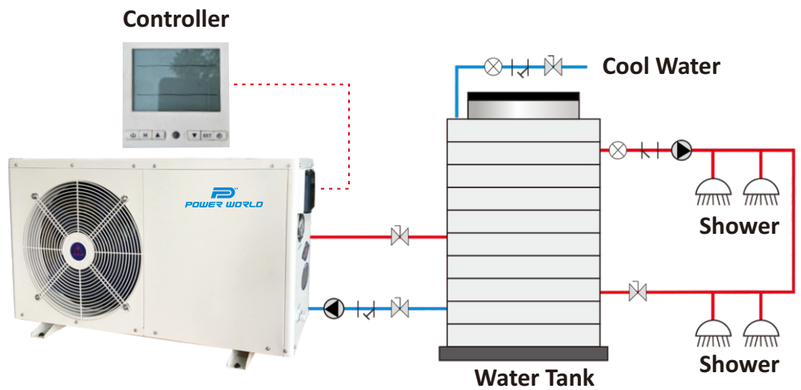
Max outlet water 60°C

RESIDENTIAL SERIES

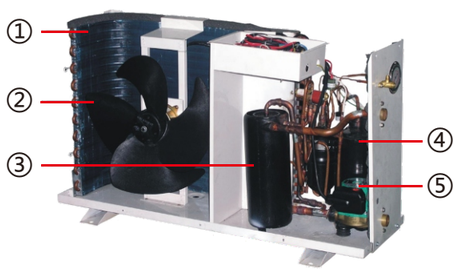
This series of hot water heat pumps are specially designed for residential/apartment sanitary hot water. Compared with ordinary air source heat pumps, this unit has a built-in circulating pump, which is easy to install and reduces costs.

- **Four-way valve for automatic defrosting**
- **High efficient tube in shell heat exchanger**
- **Panasonic rotary compressor guarantees unit running stably**
- **Built-in water pump, directly connected to the water tank, easy to install**
- **Easy and clear LCD control panel**

INSTALLATION DIAGRAM



INSIDE APPEARANCE



① **evaporator**
② **fan blade**
③ **water-refrigerant heat exchanger**
④ **compressor**
⑤ **circulation pump**

Model	PW010-KFXRS/IMT	PW015-KFXRS/IMT	PW020-KFXRS/IMT	PW030-KFXRS/IMT
Heating capacity (kW)	3.5	4.9	6.8	9.5
Input power (kW)	0.98	1.34	1.87	2.64
COP	3.57	3.66	3.64	3.60
Rated current (A)	4.5	6.2	8.6	12.1
Max input power (kW)	1.27	1.74	1.87	2.64
Max current (A)	5.9	8.1	11.2	15.7
Rated outlet water temperature (°C)	55	55	55	55
Highest outlet water temperature(°C)	60	60	60	60
Power supply	220V/1ph/50Hz			
Anti-electric shock rate	I	I	I	I
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4
Refrigerant	R410A			
Operation Ambient temp (°C)	-7~43°C			
Production capacity (L/H)	75	105	146	204
Diameter of pipe (mm)	Dn20	Dn20	Dn20	Dn25
water circulation (m^3/H)	1	2	2	2
Water pressure drop (kPa)	20	25	25	30
Noise (dB(A))	≤50	≤50	≤50	≤51
Net weight/Gross weight(kg)	53/58	55/60	59/64	65/71
Body size(W*D*H)	820×320×520	960×350×550	960×350×550	1030×350×625
Loading quantity (20GP/40GP/40HQ)	90/192/192	90/192/192	90/192/192	90/192/192
Condenser type	High efficiency tube in shell heat exchanger			
Operating water temperature (°C)	9~60°C			
Compressor brand	Panasonic			
Four-way valve brand	Sanhua			
Expansion valve brand	Sanhua			
Water pump built in	wilo			
Test condition: Inlet water temperature 15°C, Outlet water temperature 55°C, Dry bulb temperature 20°C, Wet bulb temperature15°C.				

Note:

The data above is for reference only,
Please refer to the nameplate on the unit if for more specific data.

All-in-one Water Heater

2KW~3KW

Ambient Temps
-7°C ~43°C

Tank capacity
150L~300L

Outlet water
9°C~60°C

ALL-IN-ONE WATER HEATER

All-in-one water heat pump is one of the most economical systems to heat the water for family usage-offering hot water in the bathroom and kitchen by using free renewable energy from the air. Its efficiency can be up to 3-4 times more than a conventional gas boiler or electrical heater.

WASTE HEAT RECYCLING

The standard heat exchanger of the hot-water heat pump enables direct connection to a second heat generator, such as a solar heating system or boiler.

AIR DEHUMIDIFICATION

Dehumidified air in the laundry room supports laundry drying and prevents moisture-induced damage.

CIRCULATING COOLING

The room air is extracted from the storage room or a wine cellar, subsequently cooled and dehumidified in the heat pump, and finally re-introduced into the room. Recreation rooms, boiler rooms, or utility rooms are ideal installation sites.

VARIABLE CHANGE OVER OF INTAKE AIR

A duct system with integrated bypass flaps allows for variable utilization of the heat contained in the outside air or room air for the production of hot water.

Schematic Diagram

① All in one heat pump
② Domestic water
③ Shower water
④ Washing water
⑤ Cold water inlet
⑥ Hot water outlet
⑦ Air outlet
⑧ Air inlet

Model		PW010-KZJRS (A)	
Rated heating capacity		2KW / 2.8KW	
Rated hot water(L/h)		43 / 65	
Rated input power(KW)		0.5KW / 0.7KW	
COP		4	
Rated temperature outlet(°C)		55°C	
Maxt temperature outlet(°C)		60°C/55°C	
Power supply		220V/1ph/50hz	
Compressor quantity(pc)		1	
Compressor type		GMCC Rotary	
Refrigerant		R134 A / R410A	
Noise (dB(A))		48	
Tank volume(L)		150L / 200L / 250L / 300L	
Case material		Galvanized steel	
Working area (°C)		-7~43°C	
Water connections(Inch)		G3/4"	
Diameter(mm)		Φ570	Φ640
Height(mm)		1758	1858
Net weight(kg)		75	95
Gross weight(kg)		88	112
Container loading qty		27/54/54	24/48/48
Measuring conditions	L(mm)	635	700
	W(mm)	635	700
	H(mm)	1800	1690 / 1900
Measuring conditions		Dry bulb 20°C Wet bulb 15°C,Inlet water 15°C Outlet water 55°C	

POWER WORLD

Commercial Series

HOT WATER HEAT PUMP

COMMERCIAL SERIES

Commercial Hot Water Heat Pumps adopt environmental-friendly refrigerant R410A. They are widely suitable for sanitary hot water in residential or commercial places. It can supply 55°C (Max 60°C)hot water stably 24 hours a day and works well in areas above -7°C.

Operating Temps
-7°C ~43°C

R410A
Refrigerant

Max outlet
water 60°C

LCD
Display

KEY COMPONENTS

Compressor
Gree/Copeland Brand

Four-way valve
Sanhua Brand

Evaporator

Electronic Expansion Valve
Sanhua Brand,
Intelligent EEV precise control

Condenser/heat exchanger
High efficiency tank heat exchanger
Casing heat exchanger

LCD display
Support RS485

Model	PW030 -KFXRS	PW050 -KFXRS	PW100 -KFXRS	PW150 -KFXRS	PW200 -KFXRS	PW250 -KFXRS	PW300 -KFXRS	PW500 -KFXRS
Compressor brand	Gree	Copeland						
Four-way valve brand	Sanhua							
Expansion valve brand	Sanhua							
Heating capacity (kW)	10.8	19	39	54	78	96	108	172
Input power (kW)	2.8	4.5	9.4	12.8	18.2	22.6	25.5	40.5
COP	3.86	4.22	4.15	4.22	4.29	4.25	4.24	4.25
Rated current (A)	12.7	8.5	17.6	24	34.1	42.4	45	72.4
Max input power (kW)	4.2	6.8	14	18.3	24	33.5	36.5	59
Max current (A)	19	12.3	25	32.7	42	51	65.2	105.5
Rated outlet water temperature (°C)	55	55	55	55	55	55	55	55
Highest outlet water temperature (°C)	60	60	60	60	60	60	60	60
Power supply	220V/50Hz	380V/3N~/50Hz						
Anti-electric shock rate	I	I	I	I	I	I	I	I
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Refrigerant	R410A							
Operation Ambient temp (°C)	-7~43°C							
Production capacity (L/H)	232	408	838	1161	1677	2064	2322	3698
Diameter of pipe (mm)	G3/4"	G1"	G1-1/2"	G1-1/2"	G2"	Dn65	Dn65	Dn65
water circulation (m^3/H)	1.86	3.27	6.71	9.29	13.42	16.51	18.58	29.58
Water pressure drop (kPa)	70	70	75	85	90	80	70	70
Noise (dB(A))	55	56	60	63	65	66	68	78
Net weight/Gross weight(kg)	75	135	300	256	372	470	485	1300
Body size(W*D*H)	810×695×865	740×805×1165	1500×750×1075	1530×790×1100	1705×1005×1230	2005×1050×1400		2400×1300×2670
Loading quantity (20GP/40GP/40HQ)	18/78/78	14/28/56	6/14/28	6/14/28	6/12/12	5/10/10		/
Condenser type	High efficiency tank heat exchanger				Casing heat exchanger			
Operating water temperature (°C)	9~60°C							
Test condition: Inlet water temperature 15°C, Outlet water temperature 55°C, Dry bulb temperature 20°C, Wet bulb temperature15°C.								

Note:

The data above is for reference only,
Please refer to the nameplate on the unit if for more specific data.

POWER WORLD

80°C High Temperature

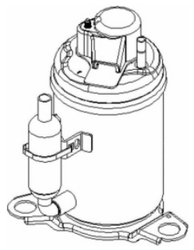
HOT WATER HEAT PUMP

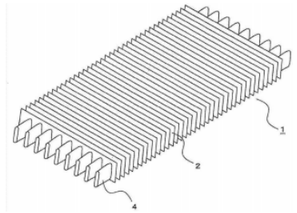
80°C HIGH-TEMPERATURE

Under the Power World's high-temperature technology and EVI technology, this series of hot water heat pumps can run stably at an ambient temperature of -5°C~43°C, the outlet water temps up to 80°C, and the operating cost is low, which can meet the high-temperature water needs of slaughterhouses, electroplating plants, printing and dyeing plants, chemical, pharmaceutical, and aquaculture industries.

Copeland compressor, EVI technology

Copeland scroll compressor, with EVI technology, supplement more capacity through economizer for high temperature hot water outlet.



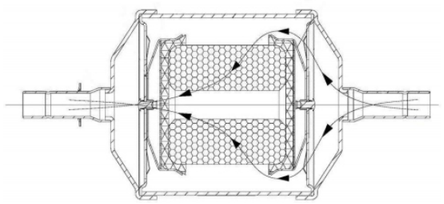


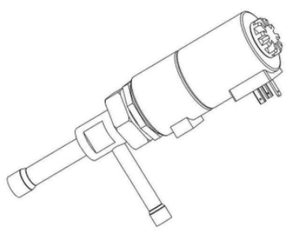
High efficient tube in tube/ shell and tube heat exchanger

Option for tube in tube and shell & tube heat exchanger, high heat transfer efficiency and easy maintenance for scales problem.

Drier-filter for more reliable system.

Drier-filter remove possible dust and moisture in refrigerant circuit, it ensures more reliable and stable system.





Electronic expansion valve

With accurate control of refrigerant flow automatically, excellent efficiency at different ambient temperature.

Model	PF030 -KFGRS-S	PF030 -KFGRS	PF050 -KFGRS	PF100 -KFGRS	PF150 -KFGRS	PF200 -KFGRS	PF250 -KFGRS	PF300 -KFGRS
Compressor Brand	Copeland(EVI)							
Four-way valve Brand	Sanhua							
Expansion valve Brand	Sanhua							
Heating capacity (kW)	7.4	8.3	13.8	27.6	41.1	55.1	65.3	82.6
Input power (kW)	2.9	3.3	5.4	10.8	16	21.5	25.4	32.3
COP	2.55	2.52	2.56	2.56	2.57	2.56	2.57	2.56
Rated current (A)	13.2	6.6	10.8	21.6	32.2	43	51	64.6
Max input power (kW)	3.92	4.46	7.3	14.6	21.6	29.0	34.3	43.6
Max current (A)	17.8	8.9	14.6	29.2	43.5	58.1	69.0	87.2
Rated outlet water temperature(°C)	75	75	75	75	75	75	75	75
Highest outlet water temperature(°C)	80	80	80	80	80	85	85	85
Power supply	220V/50Hz	380V/50Hz						
Anti-electric shock Rate	I	I	I	I	I	I	I	I
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Refrigerant	R134A							
Operation Ambient Temp(°C)	-5~43°C							
Production capacity (L/H)	106	119	198	396	598	790	987	1184
Diameter of pipe (mm)	Dn25	Dn25	Dn25	Dn32	Dn50	Dn50	Dn65	Dn65
water circulation (m³/H)	3	3	5	10	15	20	25	30
Water pressure drop (kPa)	25	25	30	35	38	46	48	52
Noise (dB(A))	≤55	≤55	≤58	≤66	≤68	≤68	≤70	≤75
Net weight/Gross weight(kg)	105/111	105/111	150/160	310/330	372/412	482/532	582/642	612/675
Body size(W*D*H)	1110X490X1260	1110X490X1260	1110X490X1410	1580×800×1600	1580×800×1600	1850×1000×1950	2000×1100×2080	2300×1100×2300
Loading quantity (20GP/40GP/40HQ)	28/56/56	28/56/56	12/24/52	6/12/12	6/12/12	6/12/12	4/10/10	0/0/5
Condenser type	High efficiency tank heat exchanger				Casing heat exchanger			
Operating water temperature(°C)	9~80°C							
Test condition: Inlet water temperature 15°C, Outlet water temperature 75°C, Dry bulb temperature 20°C, Wet bulb temperature15°C.								

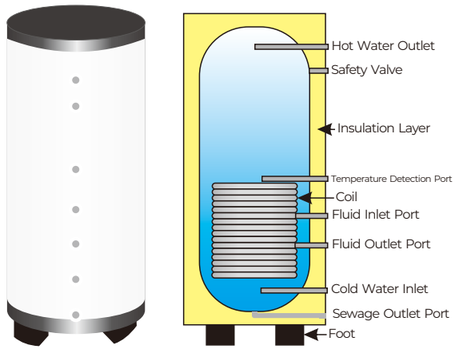
Note:

The data above is for reference only,
Please refer to the nameplate on the unit if for more specific data.

WATER TANK

Domestic Hot Water Tank& Buffer Tank

Domestic Hot Water Tank



Closed and pressure-bearing design, running with full water, supplying hot water by the pressure of tap water, constant pressure and constant temperature of the water outlet, more comfortable to use.

Equipped with one-way safety valve and negative pressure safety valve, which can effectively protect the safe operation of the water tank.

Can be connected to heating equipment such as boilers and heat pumps to store hot water for occasional use.

Strong anode rod is standard, which can effectively prevent corrosion and prolong the service life of the water tank.

Equipped with a water return port, which can be connected to a water return device, the cold water can be heated instantly, which is highly comfortable and saves water for users.

Adopts floor-mounted installation method, which is easy to install and maintain, suitable for various environments.

Model	PW-150L	PW-200L	PW-200L-1	PW-250L	PW-300L	PW-300L-1
Tank Volume(L)	150	200	200	250	300	300
Inner Tank material	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304
Inner Tank Thickness(mm)	1.0	1.2	1.2	1.4	1.4	1.4
Shell Material	Color Plate					
Shell Thickness(mm)	0.4	0.4	0.4	0.4	0.4	0.4
Coil Material	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304
Coil Type	Corrugated Pipe	Corrugated Pipe	Corrugated Pipe	Ordinary Pipe	Corrugated Pipe	Corrugated Pipe
Coil Specifications (mm)	ϕ25mm*15m	ϕ25mm*20m	ϕ25mm*20m	ϕ22mm*22m	ϕ25mm*20m	ϕ25mm*30m
Coil Thickness(mm)	0.3	0.3	0.3	1.0	0.3	0.3
Coil Area(㎡)	1.6	2.2	2.2	1.5	2.2	3.3
Cold Water Inlet	G3/4" M					
Hot Water Outlet	G3/4" M					
Circulating Water Inlet	G1" M	G1" M	G1" M	G3/4" M	G1" M	G1" M
Circulating Water Outlet	G1" M	G1" M	G1" M	G3/4" M	G1" M	G1" M
Water Return	G3/4" M	G3/4" F	G3/4" F	G3/4" M	G3/4" M	G3/4" F
Electric Heater Port	/	/	G1" F	/	/	G1" F
Electric Heater (KW)	/	/	3kW	/	/	3kW
Temperature Detection Port	G1/4" F					
Anode Rod	G3/4" F					
P/T Valve Port	/	G3/4" F			/	G3/4" F
Sewage Outlet Port	G3/4" M					
Working Pressure Bar	8	8	8	8	8	8
Insulation Layer	Polyurethane					
Insulation Layer Thickness(mm)	50			45		
Product Size(mm)	ϕ470*1525	ϕ520*1575	ϕ520*1575	ϕ560*1605	ϕ560*1885	ϕ560*1885
Package Size(mm)	540*540*1530	595*595*1590	595*595*1590	630*630*1670	630*630*1950	630*630*1950

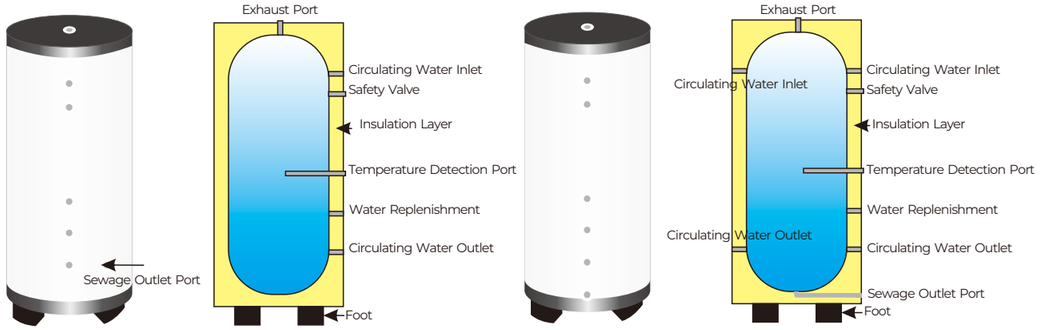
Buffer Water Tank

In a heating system, the water tank can store cold or heat, and can improve the stability of the system and the comfort of use.

It is specially designed for air source heat pumps, which can effectively reduce the starting frequency of the unit, prolong the service life of the unit and save energy.

Automatically discharge the air in the system, avoid the high-pressure protection of the outdoor unit, and at the same time reduce the cavitation of the pump impeller to protect the water pump.

Prevent system blockage and make sewage more convenient and cleaner.



One In And One Out

Two In And Two Out

Model	PWB-40L	PWB-60L	PWB-80L	PWB-100L	PWB-100L-1	PWB-100L-2	PWB-200L	PWB-250L
Tank Volume(L)	40	60	80	100	100	100	200	250
Inner Tank Material	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304
Inner Tank Thickness(mm)	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.4
Shell Material	Color Plate							
Shell Thickness(mm)	0.4							
Circulating Water Inlet Port	G6/4" F	G6/4" F	G6/4" F	G1" F	G1" F	G6/4" F	G1" F	G1" F
Circulating Water Outlet Port	G6/4" F	G6/4" F	G6/4" F	G1" F	G1" F	G6/4" F	G1" F	G1" F
Water Filling Port	/	G1/2" M	G3/4" F					
Exhaust Port	G1/2" F							
Electric Heater Port	/	/	/	/	G1" F	/	/	/
Electric Heater(KW)	/	/	/	/	3kW	/	/	/
Temperature Detection Port	/	G1/4" F						
Safety Valve Port	/	/	G1/2" M	G1/2" F				
Sewage Outlet Port	G1/2" M	G1/2" M	G3/4" M					
Working Pressure Bar	8	8	8	8	8	8	8	8
Insulation Layer	Polyurethane							
Insulation Layer Thickness(mm)	50							45
Product Size(mm)	ϕ470*555	ϕ470*705	ϕ470*915	ϕ470*1085	ϕ470*1085	ϕ470*1085	ϕ520*1575	ϕ560*1605
Package Size(mm)	540*540*570	540*540*720	540*540*990	540*540*1100	540*540*1100	540*540*1100	595*595*1590	630*630*1670

GLOBAL PROJECT INSTALLATION CASES

HOUSE HEATING COOLING AND DHW HP INSTALLATION