BAFA Logo
On the BAFA list

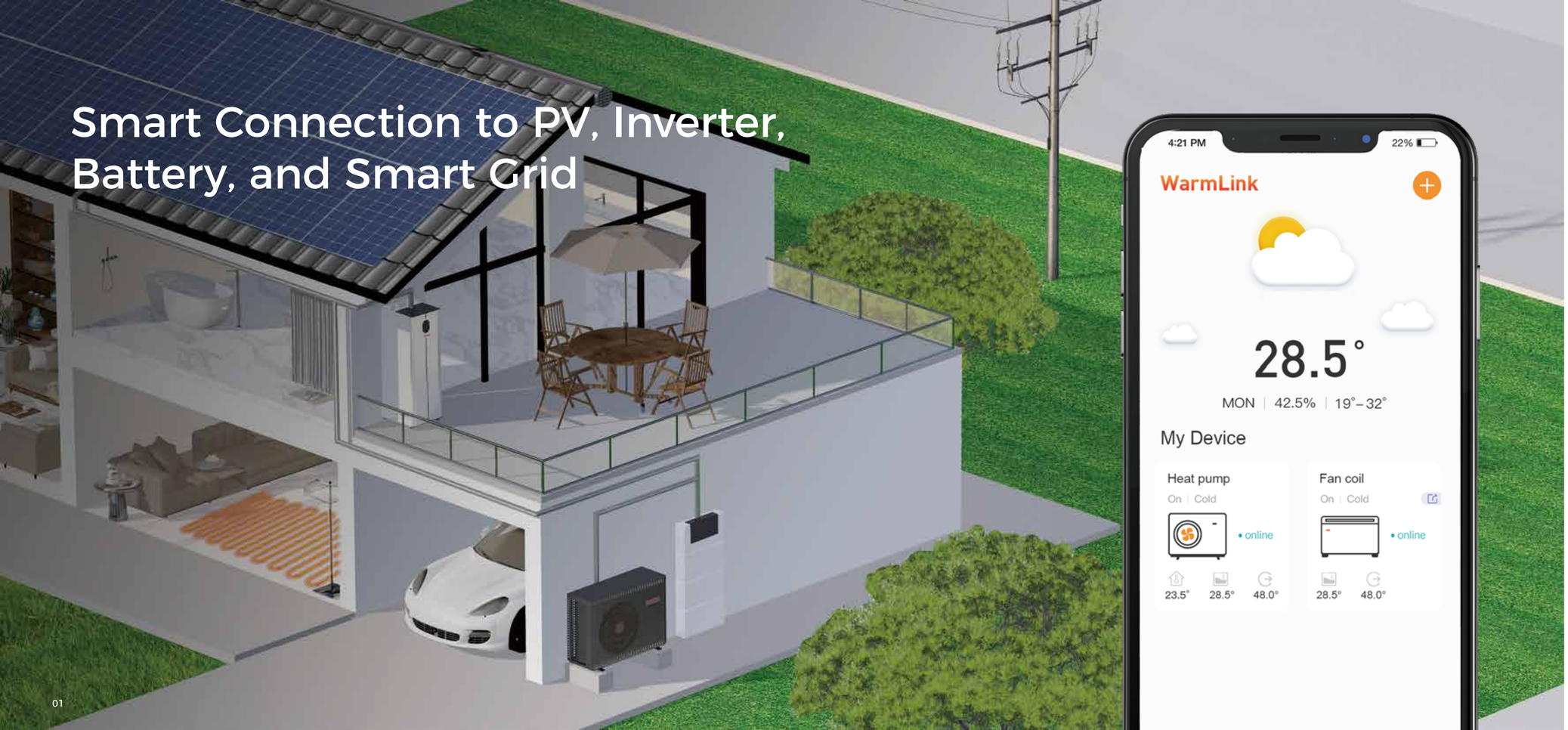
PHNIX-EUROPE
EUROPA-ALLEE 53
D- 54343 FÖHREN
PHONE: +49 (0)6502 9999 - 577
WWW.PHNIX-EUROPE.COM

PHNIX

GreenTherm Family Series

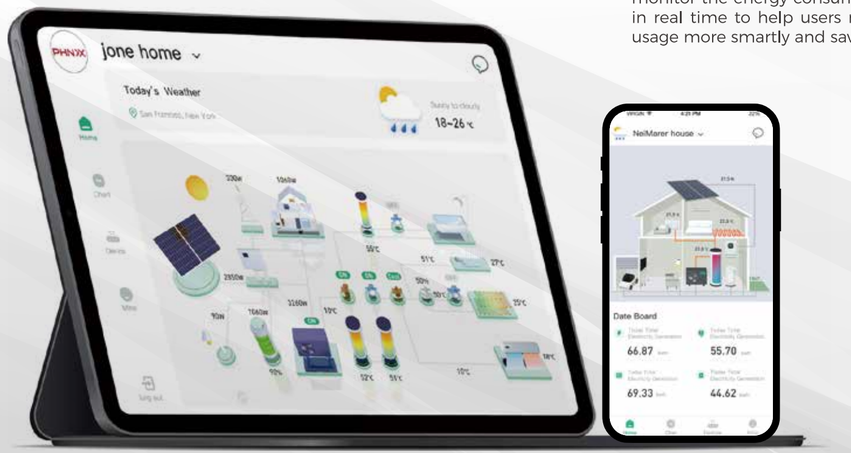
Premium Home Solution for Luxury Comfort

Smart Connection to PV, Inverter, Battery, and Smart Grid



PHNIX Smart Home Energy Solution

PHNIX heat pump can connect to users' PV system and maximize the use of PV energy.

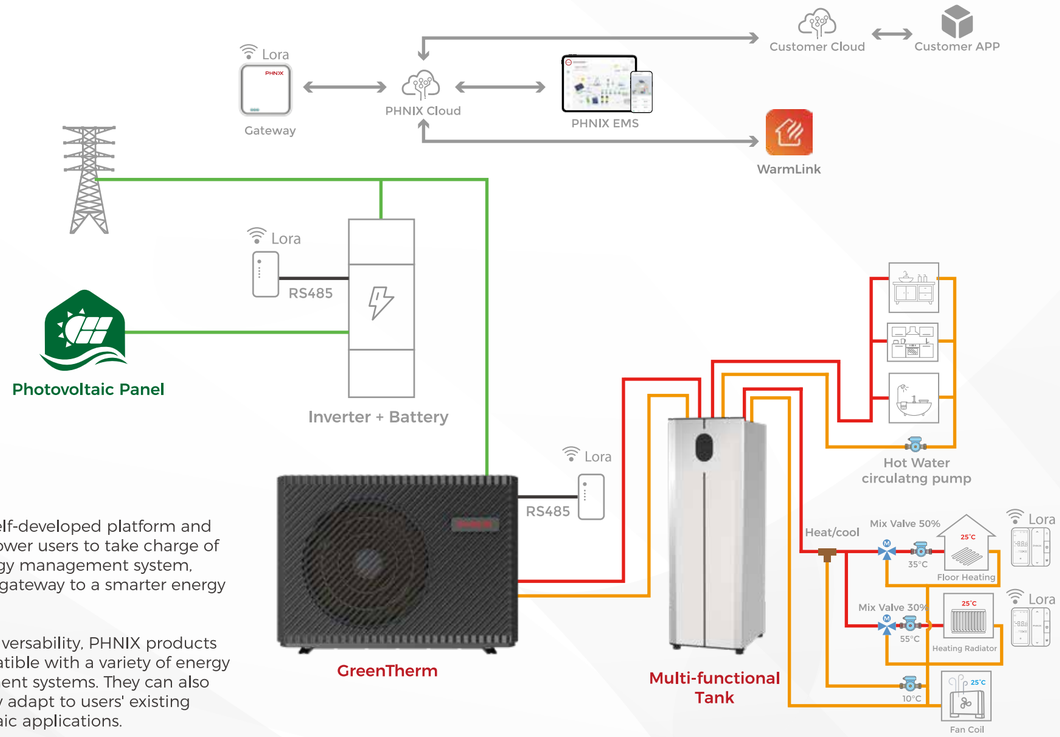


EMS

PHNIX independently developed EMS system can monitor the energy consumption of users' homes in real time to help users manage home energy usage more smartly and save energy expenses.

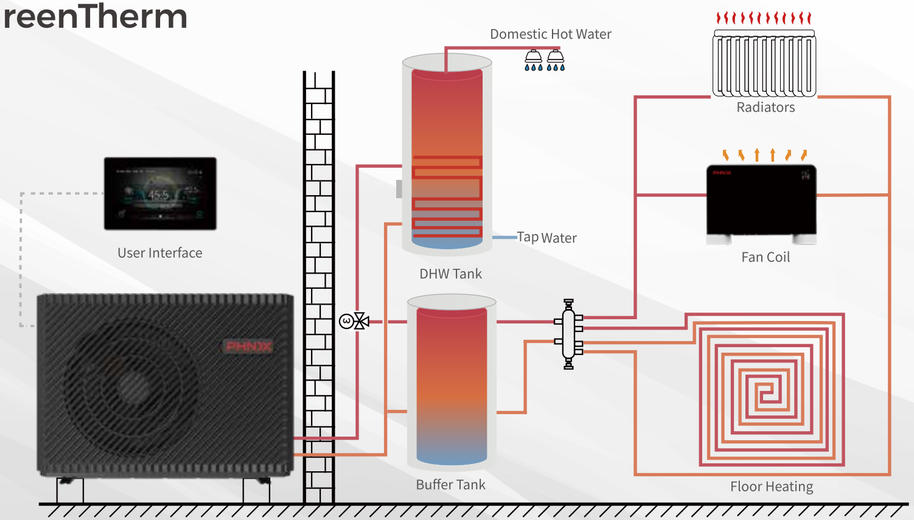
PHNIX's self-developed platform and APP empower users to take charge of their energy management system, offering a gateway to a smarter energy future.

For better versability, PHNIX products are compatible with a variety of energy management systems. They can also seamlessly adapt to users' existing photovoltaic applications.

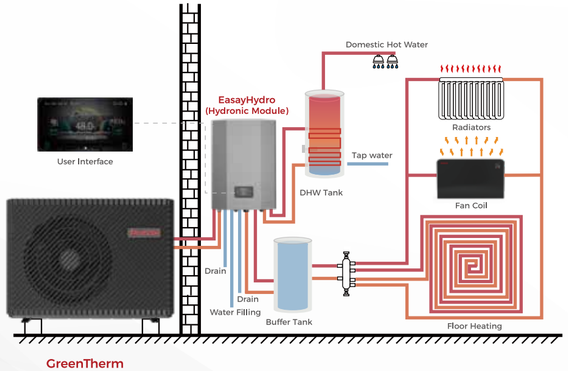


Three Installation Methods for Various Demanding

Installation with **GreenTherm**

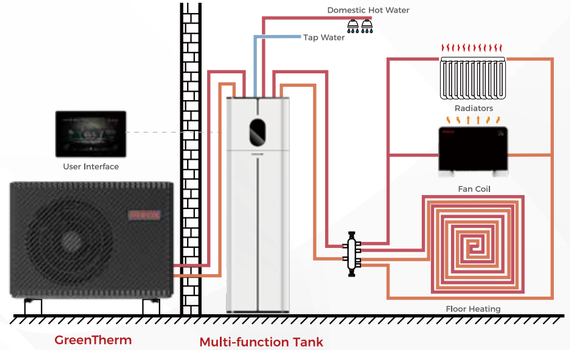


Installation with **Hydraulic Module**



In this application, the heat pump should be connected directly to EasyHydro. While the addition of a buffer tank is shortly recommended, it's necessary to include a storage water tank to meet domestic hot water demand.

Installation with **Multi-functional Tank**



Connect the heat pump directly to the **Multi-function Tank**, the most convenient installation way.

Multi-functional tank includes DHW tank, buffer tank, circulation pump for heating/cooling(optional), expansion tank, water refilling valve, electrical heater, safety valve.

Contents

GreenTherm Family Series

Air to Water Heat Pump for Heating/ Cooling, DHW

MD PED

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R290 Refrigerant

GWP 3

ODP 0

SCOP at 35°C ≥4.9

Eco-Friendly

R290, a green refrigerant, seamlessly works with common lubricants and materials. Boasting ODP=0 and low GWP, it requires no synthesis, ensuring minimal impact on carbon hydrocarbon levels and no direct contribution to greenhouse effects.

Optimal Thermal Performance

R290 has superior thermodynamic prowess, requiring less refrigerant quantity for equipment with equivalent heating capacity. This not only translates to cost savings but also underscores its environmental friendliness.

CO_2 Emission of R290, R32 & R410A

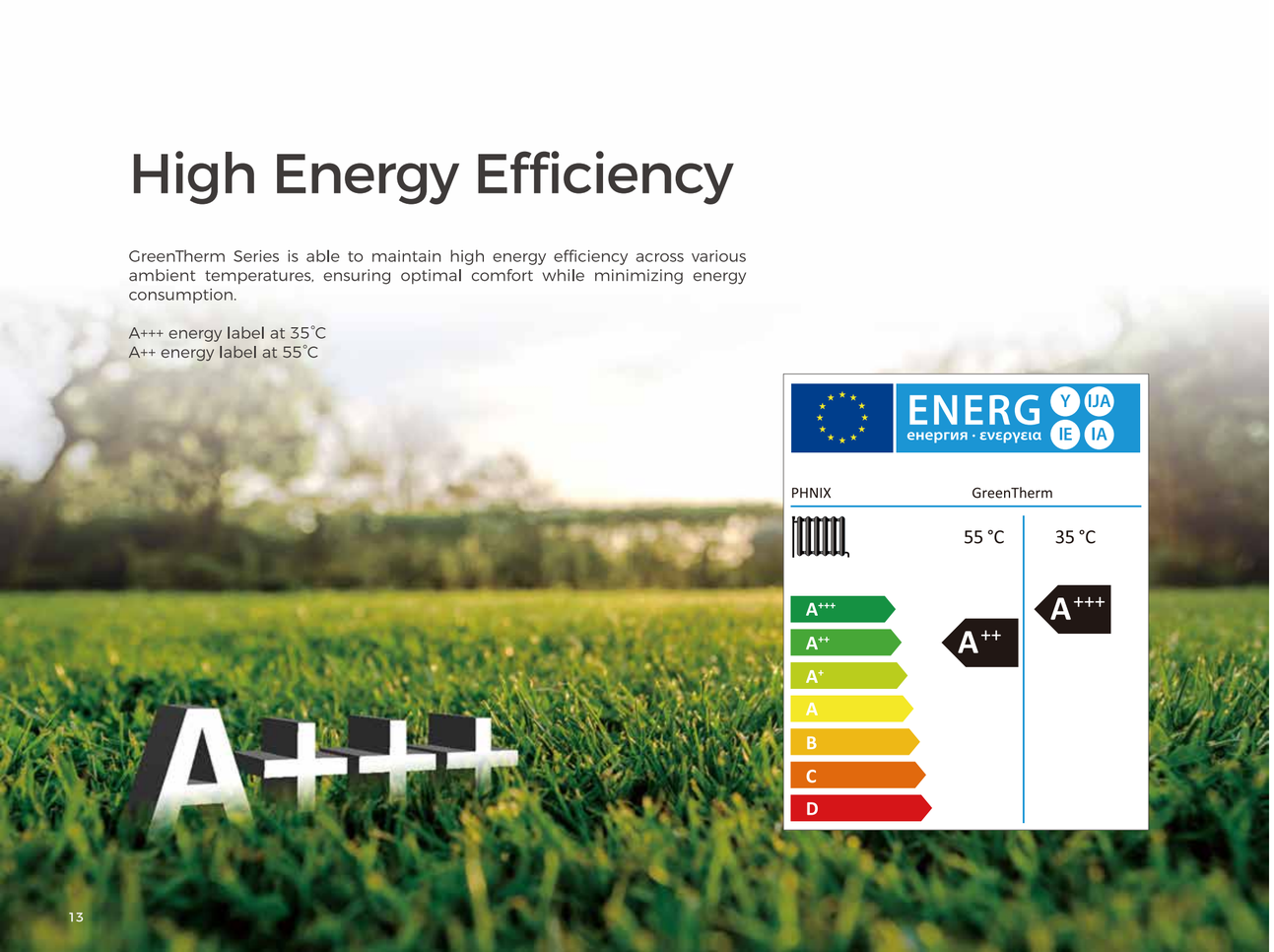
Gas Type	R290	R32	R410A
GWP	3	675	2088
Weight(kg)	0.8	1.7	2.4
Weight x GWP(kg x GWP)	0.8 x 3	1.7 x 675	2.4 x 2088
CO_2 Emission(kg)	2.4	1350	5011
Conversion of Different Means of Transportation	20-minute drive by car about 14.8km	4-hour flight from Hongkong to Singapore	17-hour flight from Hongkong to Chicago

Taking an R32 12kW heat pump with the same capacity as an example: the refrigerant charge for R32 is 1.7kg, while for R290, it is only 0.8kg, which is 40% of the R32 refrigerant quantity. The R290 heat pump requires less refrigerant, yet it can achieve the same or even higher capacity.

High Energy Efficiency

GreenTherm Series is able to maintain high energy efficiency across various ambient temperatures, ensuring optimal comfort while minimizing energy consumption.

A+++ energy label at 35˚C
A++ energy label at 55˚C



Outstanding Cold-weather Performance

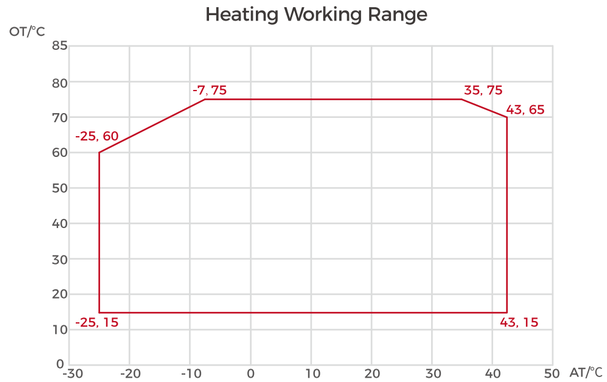
· Low-temperature operation, capable of running in environments as cold as -25˚C.

· Taking the year-round weather conditions in Helsinki, Finland as an example, even during extremely cold and sudden weather, this heat pump can operate with backup heat sources. Moreover, the heat pump can essentially meet the year-round heating needs of the house.

High-temperature Hot Water Solutions

· Elevate home comfort with outlet water temperatures soaring up to 75˚C.

· Added hygiene as PHNIX GreenTherm comes equipped with a disinfection feature, ensuring clean and sanitary water output.



Noise Reduction Technology

Norminal sound pressure lower to 42-48dB(A)

· Compressor features advanced noise reduction technology and utilizes a high-efficiency, low-noise motor.

· Optimized fan blades and improved airflow for a smoother air output, further reducing noise.

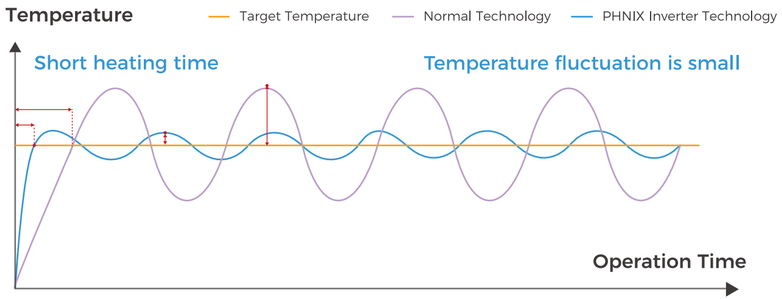
· PHNIX's professional compressor base design reduces unit vibrations, consequently minimizing operational noise.

Soundproof Isolation

Shock Absorption & Noise Reduction Technology

PHNIX Full Inverter Technology

Improve energy efficiency



Smart Touch Display

Touch Operation
· Effortless touchscreen controls for easy operation.
· Sleek and aesthetic design for simplicity.

Versatile Installation
· Wall-mountable with the option for waterproof casing.
· Adaptable to various installation scenarios.

Multi-Language Support
With support for up to 13 languages, it offers a user-friendly experience catering to a diverse global audience.

Advanced Monitoring and Recording
· Access to temperature curves for water, ambient, and environmental conditions within the last 45 days.
· Retrieve operational data under different loads, facilitating convenient installation, debugging, and after-sales service.

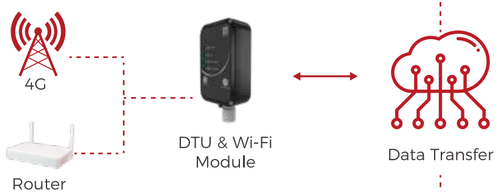
Cascade Controller

Control Introduction

Unit Control | Curve Record | AT Compensation | Status Checking | Timer | Auto Address Assignment

Smart Control Family

WarmLink APP



WarmLink APP

- Temperature adjustment
- Timer setting
- Mode switching
- Fault alarm and record
- Monitor power-consumption statistics

IOT

Automatic Fault Alarm

DTU or WIFI Remote Monitor and Control

Dual Zone Control

Radiator

Evenly distributing warm air throughout the area ensures comfort even in distant corners.

> 50˚C

Fan coil unit

Efficiently and ultra-quietly, delivers both cooling and heating.

> 40˚C ≤ 20˚C

Underfloor heating

Offer an even increase in temperature, maintaining a consistently comfortable environment.

≤ 35˚C

All-new Mainboard

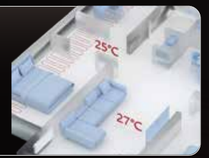
New mainboard with strong capability

Plug-and-Play Design*

SG-Ready Compatibility

Dual Zone Control

Different Temp. Output



Temperature Compensation

*Only applicable to the U series.

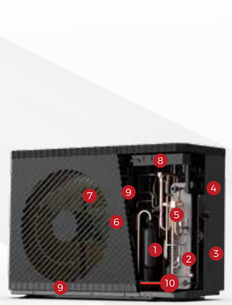
PHNIX Patented Defrost Technology

Equipped with PHNIX's exclusive defrost technology, our motherboard boasts top-notch defrost capabilities. This advanced technology not only enhances the efficiency of heat pump heating but also extends the overall lifespan of the heat pump, ensuring a sustained and reliable performance.

PHNIX heat pump in ultra-low-temperature blizzard test

Integrated Design

PHNIX's integrated design incorporates the heat pump system into a single unit, saving installation space and making maintenance easier. Additionally, placing the heat pump outdoors not only saves indoor space for users but also eliminates the safety hazard of refrigerant leakage indoors, ensuring a more comfortable and worry-free user experience.



1. Compressor
2. Plate heat exchanger
3. Main circulation pump
4. Exhaust valve
5. Pipes
6. ASA casing
7. Fan
8. Electrical box
9. Pan heater
10. Crankcase heater

Energy Cost Comparison

GreenTherm Heat Pump:
· Environmentally Friendly
· High Efficiency
· Low Operating Costs

Gas Boiler:
· Potential for CO leaks
· Environmental Pollution Through the Burning of Fossil Fuels.

Electric Heating:
· High Energy Costs
· Limited Heat Capacity
· Dependency on Electricity Supply

75%
Energy Saving
COP ≥ 4.0

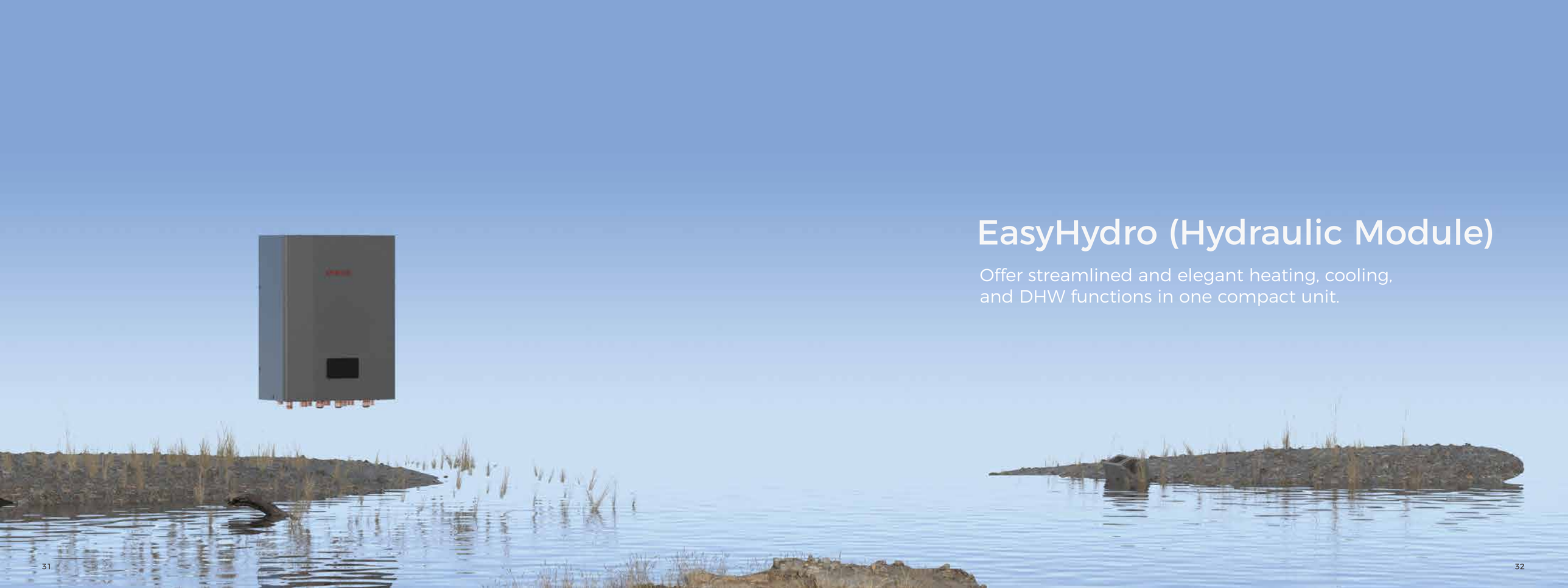
Diverse Heat Sources in Assembly
Given that GreenTherm can integrate with existing boilers, it undoubtedly emerges as the premier alternative to traditional boiler systems in older buildings. Moreover, it serves as a backup solution for heating and hot water alongside the existing boiler.

GreenTherm Series Specification

Model		PASRW020-BP-PS-D	PASRW040-BP-PS-D	PASRW040S-BP-PS-D	PASRW060-BP-PS-D	PASRW060S-BP-PS-D
Power Supply	/	220-240V~/50Hz	220-240V~/50Hz	380~415V/3N~/50Hz	220-240V~/50Hz	380~415V/3N~/50Hz
Heating Condition - Ambient Temp. (DB/ WB): 7/ 6˚C, Water Temp. (In/ Out): 30/ 35˚C						
Nominal Capacity	kW	6	10	10	17	17
Heating Capacity Range	kW	3.10~8.90	5.40~14.95	5.40~14.95	8.00~22.00	8.00~22.00
Heating Power Input Range	kW	0.65~2.10	1.05~3.85	1.05~3.85	1.60~6.90	1.60~6.90
Heating Condition - Ambient Temp. (DB/ WB): 7/ 6˚C, Water Temp. (In/ Out): 50/ 55˚C						
Nominal Capacity	kW	5	10	10	17	17
Heating Capacity Range	kW	2.20~5.90	3.51~12.60	3.51~12.60	6.02~20.60	6.02~20.60
Heating Power Input Range	kW	0.91~2.18	1.42~5.20	1.42~5.20	2.40~7.01	2.40~7.01
Cooling Condition - Ambient Temp. (DB/ WB): 35/ 24˚C, Water Temp. (In/ Out): 23/ 18˚C						
Cooling Capacity Range	kW	2.05~6.87	4.15~11.69	4.15~11.69	3.18~19.50	3.18~19.50
Cooling Power Input Range	kW	0.51~2.84	1.51~4.85	1.51~4.85	1.31~8.11	1.31~8.11
Cooling Condition - Ambient Temp. (DB/ WB): 35/ 24˚C, Water Temp. (In/ Out): 12/ 7˚C						
Cooling Capacity Range	kW	1.20~5.72	3.60~10.50	3.60~10.50	4.20~15.00	4.20~15.00
Cooling Power Input Range	kW	0.65~2.40	1.12~4.47	1.12~4.47	1.80~7.30	1.80~7.30
Max. Power Input	kW	3.0	5.3	5.3	7.5	9
Max. Current Input	A	13.5	24.5	10.5	35.0	15.8
Refrigerant Type	/	R290				
Refrigerant Volume	KG	0.50kg	0.85kg	0.85kg	1.30kg	1.30kg
Sound Pressure (1m)	dB(A)	42	43	44	47	47
Sound Power Level (EN12102)	dB	57	57	58	62	62
Net Weight	kg	80	160	160	202	202
Unit Dimension(L/W/H)	mm	1167×407×795	1287×458×928	1287×458×928	1250×540×1330	1250×540×1330
Shipping Dimension(L/W/H)	mm	1300×485×940	1420×540×1080	1420×540×1080	1380×570×1480	1380×570×1480
Compressor	Brand	HIGHLY				
Circulation Pump	/	Yes				
Operating Ambient Temperature	˚C	-25~43	-25~43	-25~43	-25~43	-25~43
Fan Quantity	/	1	1	1	2	2
Fan Motor Type	/	DC motor				
Water Connection (inch)	inch	1	1	1	1	1
Rated Water Flow	m³/h	1.0	1.7	1.7	2.9	2.9
Water Pressure Drop @Rated Water Flow	kPa	18.3	29.5	29.5	42.2	42.2
Circulation Pump Head @Rated Water Flow	m	7.5	7.5	7.5	12.5	12.5
Cabinet Type	/	Galvanized sheet metal+ASA				

GreenTherm U Series Specification

Model		U15	U20	U30	U40	U40S	U60	U60S
Power Supply	/	220-240V~/50Hz	220-240V~/50Hz	220-240V~/50Hz	220-240V~/50Hz	380~415V/3N~/50Hz	220-240V~/50Hz	380~415V/3N~/50Hz
Heating Condition - Ambient Temp. (DB/ WB): 7/ 6˚C, Water Temp. (In/ Out): 30/ 35˚C								
Nominal Capacity	kW	4	6	8	10	10	17	17
Heating Capacity Range	kW	1.80~6.70	1.80~9.75	2.40~12.30	4.56~14.45	4.56~14.45	5.30~22.30	6.10~22.30
Heating Power Input Range	kW	0.49~1.49	0.49~2.08	0.68~3.10	1.2~3.78	1.19~3.78	1.75~5.50	1.28~5.50
Heating Condition - Ambient Temp. (DB/ WB): 7/ 6˚C, Water Temp. (In/ Out): 50/ 55˚C								
Nominal Capacity	kW	4.5	5.5	7.5	9.3	9.3	17	17
Heating Capacity Range	kW	2.25~6.00	2.25~8.54	3.00~11.20	3.62~12.91	3.61~12.91	6.09~21.70	6.08~21.70
Heating Power Input Range	kW	0.93~1.98	0.93~3.09	1.25~4.06	1.45~5.21	1.44~5.21	2.43~7.89	2.42~7.89
Cooling Condition - Ambient Temp. (DB/ WB): 35/ 24˚C, Water Temp. (In/ Out): 23/ 18˚C								
Cooling Capacity Range	kW	2.10~6.00	2.10~9.40	4.80~11.00	4.16~13.50	4.16~13.50	3.20~22.00	5.84~22.00
Cooling Power Input Range	kW	0.50~1.45	0.50~2.80	0.88~4.00	1.48~4.87	1.50~4.87	1.30~8.10	2.36~8.10
Cooling Condition - Ambient Temp. (DB/ WB): 35/ 24˚C, Water Temp. (In/ Out): 12/ 7˚C								
Cooling Capacity Range	kW	1.60~4.80	1.60~6.89	2.2~9.10	3.11~10.47	3.12~10.47	3.90~17.10	4.52~17.20
Cooling Power Input Range	kW	0.60~1.60	0.60~2.64	0.92~4.20	1.34~4.45	1.35~4.46	1.80~7.58	1.73~7.63
Max. Power Input	kW	2.76	3.90	5.10	6.30	6.30	8.52	9.10
Max. Current Input	A	12.0	17.0	22.0	30.0	12.2	36.1	16.
Refrigerant Type	/	R290						
Refrigerant Volume	KG	0.75	0.75	0.8	0.98	0.98	1.40	1.40
Sound Pressure (1m)	dB(A)	42	45	46	46	46	48	48
Sound Power Level (EN12102)	dB	56	58	60	61	61	63	64
Net Weight	kg	105	105	120	145	159	205	220
Unit Dimension(L/W/H)	mm	1167×407×795	1167×407×795	1167×407×795	1287×458×928	1287×458×928	1250×540×1330	1250×540×1330
Shipping Dimension(L/W/H)	mm	1300×485×940	1300×485×940	1300×485×940	1420×540×1080	1420×540×1080	1380×570×1480	1380×570×1480
Compressor	Brand	HIGHLY						
Circulation Pump	/	Yes						
Operating Ambient Temperature	˚C	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
Fan Quantity	/	1	1	1	1	1	2	2
Fan Motor Type	/	DC motor						
Water Connection (inch)	inch	1	1	1	1	1	1	1
Rated Water Flow	m³/h	0.69	1.03	1.38	1.7	1.7	2.9	2.9
Water Pressure Drop @Rated Water Flow	kPa	5	15	15	20	20	40	40
Circulation Pump Head @Rated Water Flow	m	5.5	7.5	6.8	5.6	5.6	10.5	10.5
Cabinet Type	/	Galvanized sheet metal+ASA						



EasyHydro (Hydraulic Module)

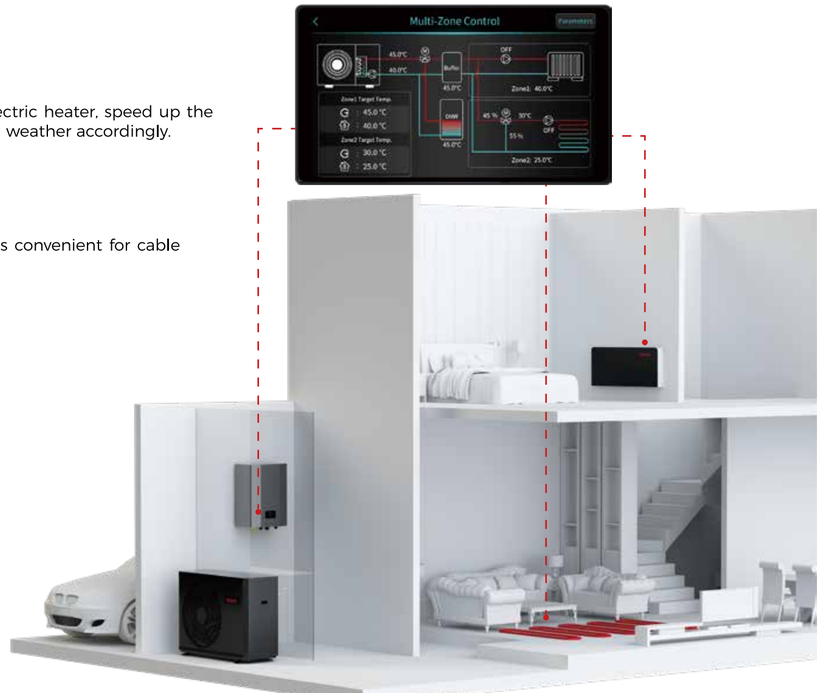
Offer streamlined and elegant heating, cooling, and DHW functions in one compact unit.

Installation with Hydraulic Module

Integrated hydraulic components to make installation easier.

Include a modulating electric heater, speed up the heating in extremely cold weather accordingly.

With an electrical box, it's convenient for cable wiring and maintenance.



Integrated Design

1. Color Screen Controller
2. 10L Expansion Tank
3. Water Pump(Optional)
4. 3-way Valve
5. Electric Heater

Hydraulic Module Specification

Model		EHB030-C	EHB090S-C
Power Supply	/	220-240V~/50Hz	380-415V/3N~/50Hz
Water Temp. Range	℃	5~75	
Filling Water Connection	inch	3/4	
Drain Connection	inch	3/4	
Heat Pump Side Water Connection	inch	1	
Heating Side Water Connection	inch	1	
Hot Water Side Water Connection	inch	1	
Max. Water Pressure	bar	3	
Main Circulation Water Pump	/	Water Pump(Optional)	
*Water Head	m	9.8	
*Water Pressure Drop	kPa	22	
Expansion Tank	L	10	
Electrical Heater	kW	3	3+6
*Sound Pressure at 1 Meter	dB(A)	35	
Water Return Pipe Design	/	Yes	
Dual Zone Control	/	Yes	
Net Weight	kg	53	
Unit Dimensions (L x W x H)	mm	665×485×295	

*The test flow rate is 1.7m³/h

Multi-functional Tank

More Features

Patented Design

Product Patent Number:
ZL 2021 2 1618271.5

Compact Inner Structure Design

The compact inner structure makes the water tank very flexible in installation and it won't take up too much space in the users' home.

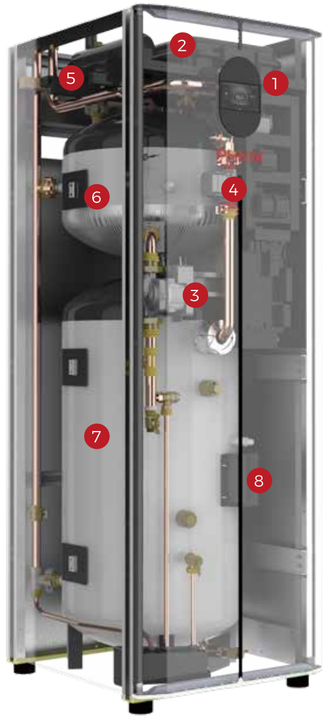
Stable Temperature

Supplying stable hot or cool water for either fan coil or floor heating coil, the water tank enables users to enjoy more gentle cool air in summer, and the more stable and warm temperature in winter.

Separate DSS Liner

The Duplex Stainless Steel(DSS) liner is strongly anti-corrosion and quake-proofed which ensures long service life. Besides, with it, the heat pump can provide stable hot water while performing house heating.

Integrated Design



Multi-functional Tank Specification

Model		HB60-180	HB60S-180
Power Supply	/	220V-240V~/50Hz	380V-415V~/50Hz
Max. Power Input	kW	6	13.2
Max. Current Input	A	26	30
Net Weight	kg	137	137
Electrical Heater for Heating	kW	3	3+6
Electrical Heater for DHW	kW	2	
DHW Tank Volume	L	180	
Buffer Tank Volume	L	60	
Expansion Tank	L	12	
Water Connection (inch)	inch	1	
Cabinet Type	/	Galvanized sheet metal	
Unit Dimension(L/W/H)	mm	695×595×1800	
Shipping Dimension(L/W/H)	mm	780×685×1950	

1. Color Screen Controller
2. 12L Expansion Tank
3. Water Pump (Optional)
4. 3-way Valve
5. Electric Heater for House Heating
6. Buffer Tank
7. DHW Tank
8. Electrical Heater for DHW

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