Hisense

life reimagined

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Note： Product design and specification subject to change without prior notice.
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Hisense

Hi-Therma II

R290 Heat Pump Product Catalogue



Reimagine your solution



Hisense SINCE 1969

Hisense is a well-known large-scale electronic information industrial group. With strong emphasis on technology and innovation, its efficient technological innovation system firmly grounds Hisense at the forefront of its peers. At present, Hisense brand family has expanded to include multiple famous brand Hisense, Toshiba, Gorenje and ASKO.

SINCE 1969

BUSINESS OVERVIEW

Multimedia

TV and Display Devices
Internet TV Operation
Mobile Communication Devices
Optical Communication
Devices
Chip



Household Appliances

Refrigerator
Freezer
Air-conditioner
Washing Machine
Kitchen Appliance



IT Smart Systems

Smart City
Smart Community
Smart Transportation
Smart Business
Medical Electronic Devices
Smart Home System and Service



Real Estate & Modern Services

Real Estate
High-end Shopping Mall Chain
Mould Design and Manufacturing
Finance
Trade



GLOBAL HISENSE SINCE 1969

Hisense has started a long-term sports marketing strategy to increase brand awareness worldwide. After the successful sponsorship of **UEFA EURO 2016 & 2020** and **FIFA WORLD CUP 2018 & 2022**, Hisense has made clear its focus on football. Hisense also is the official partner of **UEFA EURO 2024.**



Team Supplier to Red Bull Racing

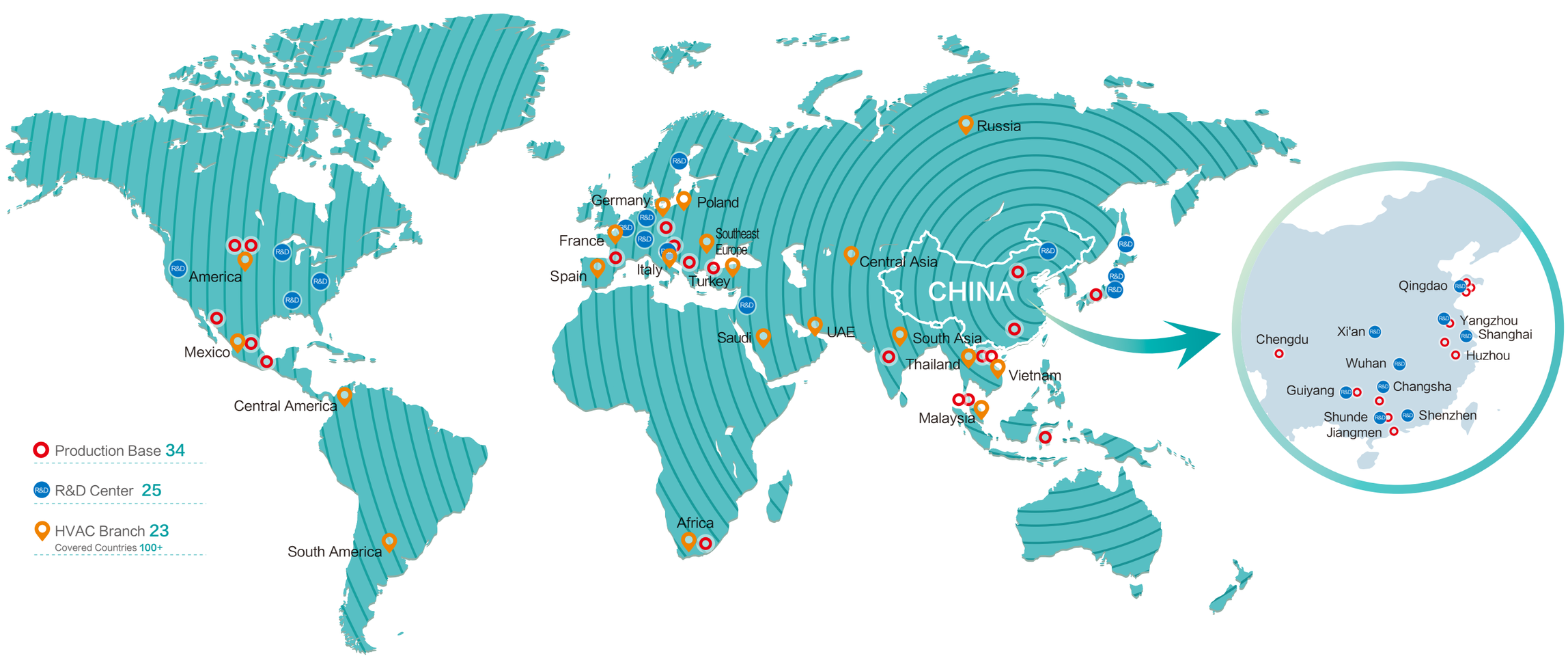
Official Partner of UEFA EURO 2016

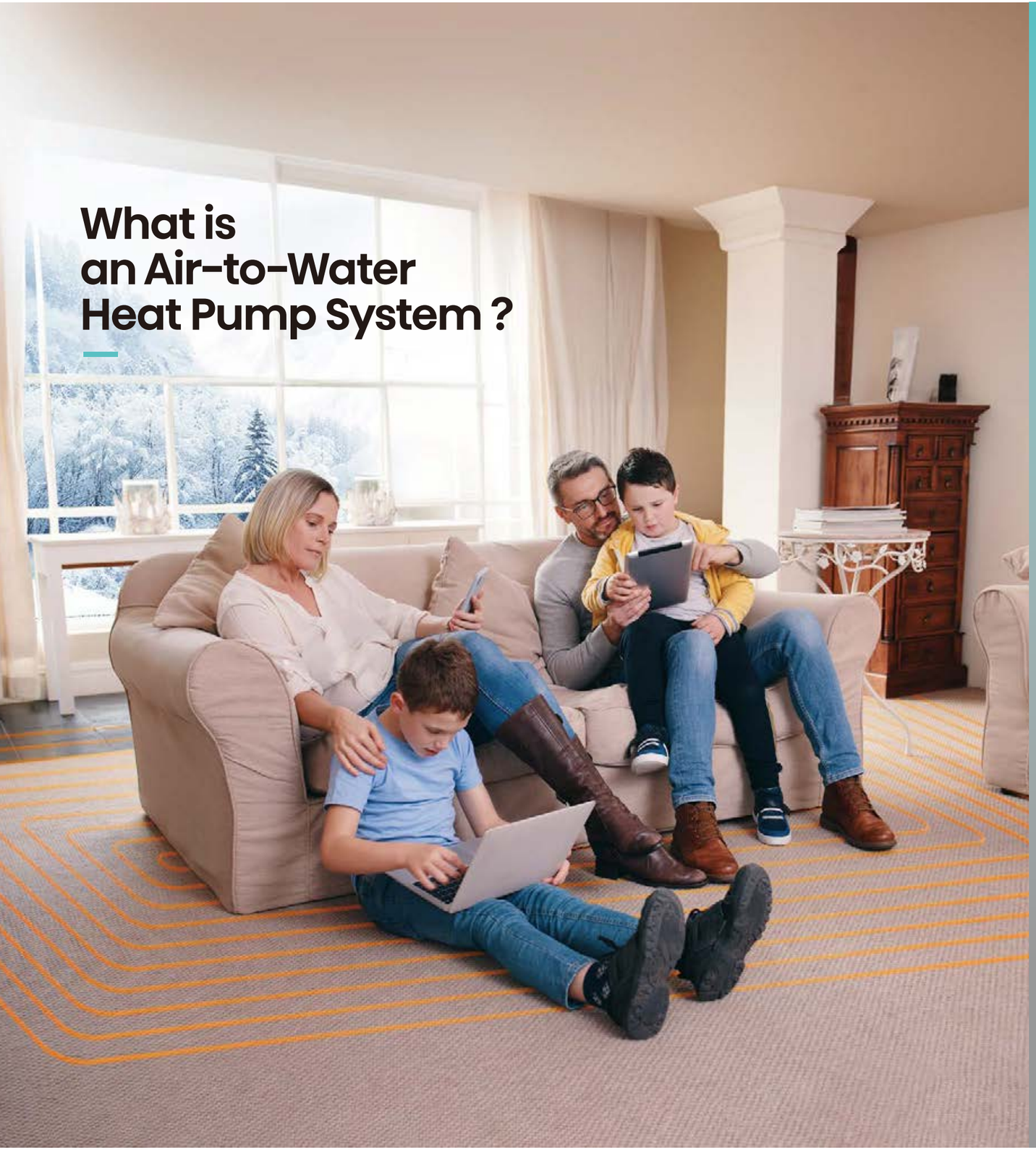
Official Sponsor of 2018 FIFA World Cup

Official Partner of UEFA EURO 2020

Official Sponsor of 2022 FIFA World Cup

Official Partner of UEFA EURO 2024





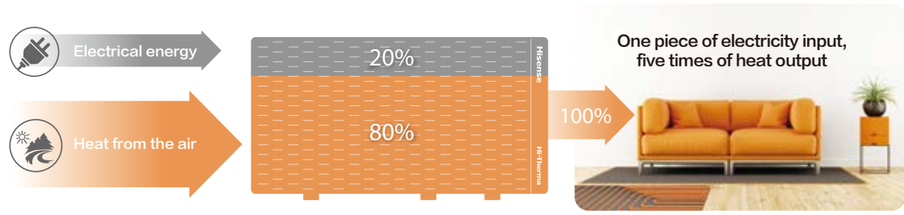
What is an Air-to-Water Heat Pump System ?

Hi-Therma II

The ATW heat pump system is a revolutionary solution for cooling, heating and domestic hot water. It converts renewable energy sources like air, soil and water into useful heat through an refrigerant cycle, which is more energy-efficient and eco-friendly than traditional fossil fuel boilers.

Advanced Renewable Energy Utilization Technology

Thanks to the advanced heat pump technology, Hi-Therma II Series can pump heat from the natural air source with a small amount of electricity used, and then supply a large amount of heat to your home. The heat output is greater than the electricity input, making the system highly efficient.

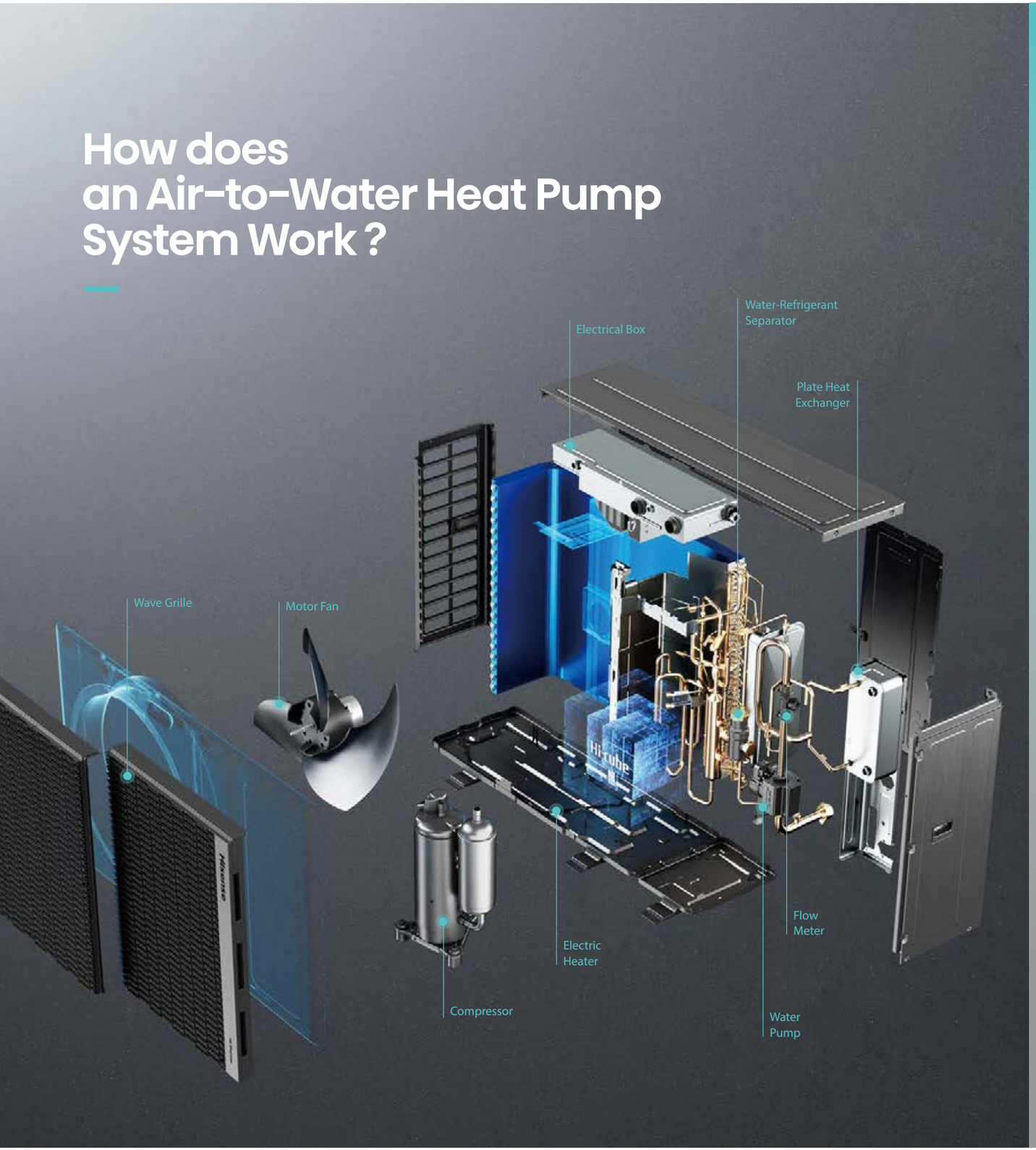


Sustainable Alternative to Conventional Boilers

Traditional heating systems rely on fossil fuels like gas, oil, and coal, which have caused heavy environmental pollution and greenhouse gas emissions. Hi-Therma II Series has been developed to meet the increasing demand for eco-conscious devices in both newly-built and renovated homes, reducing environmental impact and minimizing energy consumption to the greatest extent.



How does an Air-to-Water Heat Pump System Work ?



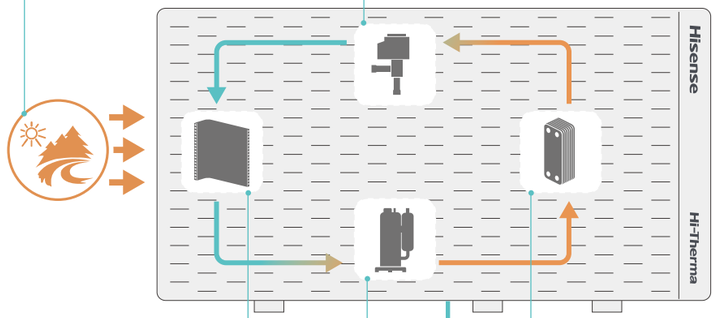
Hi-Therma II

1 Heat source

Absorb heat from outside air.

5 Expansion valve

The liquid refrigerant at high pressure flows through the expansion valve to restore its original low-pressure state.



2 Evaporator

When absorbing heat from the air, the low-temperature refrigerant will transition from liquid phase to vapor phase.

4 Condenser

The refrigerant gas at high temperature and pressure flows into the heat exchanger, where the heat enegy is transferred from the refrigerant to water for heating purpose.

3 Compressor

The vaporized refrigerant flows into the compressor where it absorbs the heat generated by the electrical energy, making it a high-temperature and high-pressure gas refrigerant.



Domestic Hot Water



Underfloor Heating



Radiator Heating



Fan Coil Unit Cooling&Heating

Regulations and Certifications



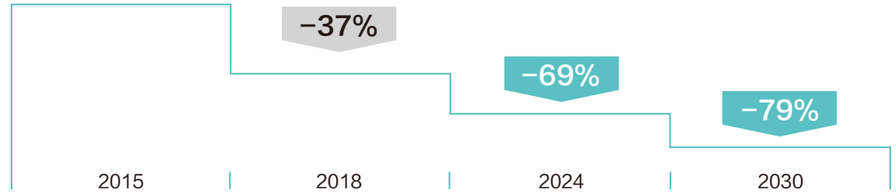
Hi-Therma II

F-Gas Regulation

European regulation F-GAS (517/2014) came into force on 1st January 2015, in order to reduce greenhouse gas emissions. It aims to reduce the environmental impact of F-gases through the reduction of the amount of HFC (hydrofluorocarbon) refrigerant used in cooling and heating systems.

The regulation 517/2014 prescribes a phase-down of HFCs, where the quantities of HFCs that are placed on the market are gradually reduced through the allocation of quotas by the European Commission. The phase-down targets are expressed in CO_2 equivalents (= kg x GWP- Global Warming Potential) and aim to reduce HFC consumption by 79% in 2030.

Consumption of HFC compared to CO_2 equivalent tonnes



KEYMARK Certifcate

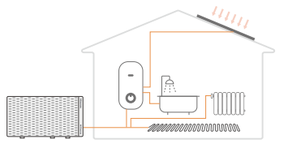
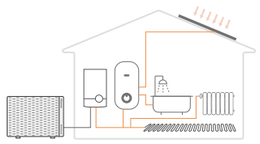
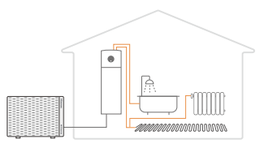
The Heat Pump KEYMARK is a voluntary, independent European certification mark (ISO type 5 certification) for all heat pumps, combination heat pumps and hot water heaters (as covered by Ecodesign, EU Regulation 811/2013 and 813/2013).

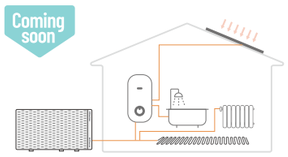
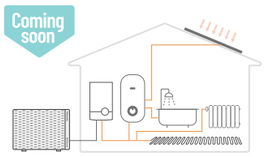
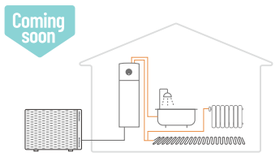
It is based on independent, third party testing and demonstrates compliance with product requirements as set in the Heat Pump KEYMARK scheme rules and with efficiency requirements as set by Ecodesign.

The Heat Pump KEYMARK scheme is owned by the European Committee for standardization (CEN). The certificates are granted by independent Certification Bodies to products fulfilling all requirements of the scheme.

Check all our certified heat pumps on: www.heatpumpkeymark.com

Product Lineup Overview

Series	Hi-Therma II R290		
Type	M1 Series	H1 Series	
Diagram			
Soution	Monobloc	Hydro-split	Hydro-integra
Line-up	1 phase 5.0/8.0/10.0kW	1 phase 5.0/8.0/10.0kW	1 phase 5.0/8.0/10.0kW
Application			
Energy Label Space Heating 35℃	A+++	A+++	A+++
Energy Label Space Heating 55℃	Up to A+++	A++	A++

Series	Hi-Therma II R290		
Type	M2 Series	H2 Series	
Diagram			
Soution	Monobloc	Hydro-split	Hydro-integra
Line-up	1 phase/3 phase 12.0/14.0/16.0kW	1 phase/3 phase 12.0/14.0/16.0kW	1 phase/3 phase 12.0/14.0/16.0kW
Application			
Energy Label Space Heating 35℃	A+++	A+++	A+++
Energy Label Space Heating 55℃	A++	A++	A++



Hi-Cloud

Third-party Voice Assistant

works with the Google Assistant *

WORKS WITH amazon alexa *

ConnectLife **

Note: * Support Hi-Mit Connection

** Coming Soon

Environment Friendly

R290

Eco-Friendly
Refrigerant

DESIGN AWARD 2024

Award-Winning
Futuristic Design

reddot design award

Interior Aesthetics Design



Transforming Technology into Art

A visual treat that pleases your eyes and captivates your senses

DESIGN AWARD 2024





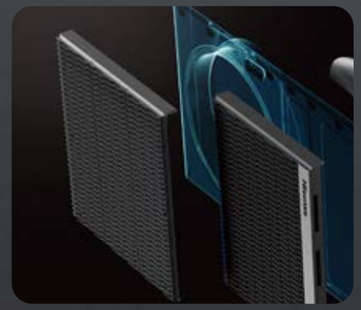
Smooth Wave grille,
Reduced Fan Noise



Environmental-friendly
Recyclable Plastics



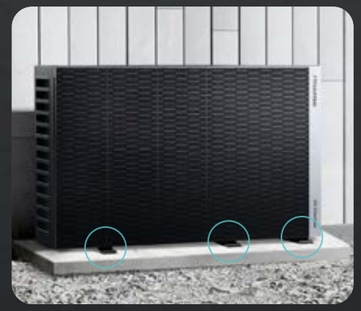
Decorative Metal Plaque



Detachable Modular Grilles



Geometric Design
with Smooth Edges



Invisible Base Brackets

IF Award-Winning, Minimalist & Futuristic Aesthetics

The state-of-the-art design of Hi-Therma II Series conveys our pursuit for sustainability, futurism, and minimalism. It adopts a streamlined geometric design with smooth edges treated with high-quality craftsmanship. The modular grilles is made of environmental-friendly recyclable plastics, with the specially-designed decorative metal plaque on the right side. Whether in residential or commercial spaces, it can seamlessly integrate into the environment.



Red Dot Award-winning, Interior Aesthetics Design

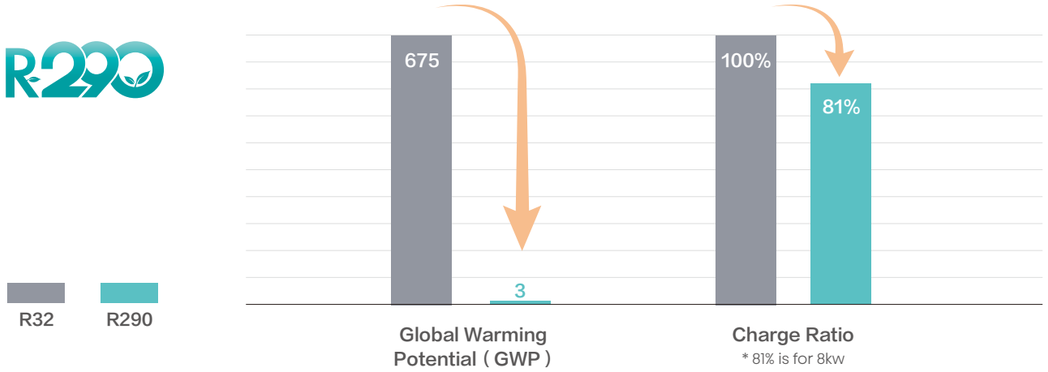
Our Red Dot Award-winning indoor unit integrates modern minimalist with classic elegance, tailored to seamlessly blend with your interior decor. They are not only home appliances, but also artistic expressions that elevate the ambiance of your space, turning the ordinary into extraordinary.



R290 Eco-Friendly Refrigerant

R290, also known as propane, is an eco-friendly refrigerant that marks a significant step forward for sustainable HVAC solutions. Unlike traditional refrigerants such as R-22 or R-410A which contain ozone-depleting substances or have high global warming potential, R290 offers a much greener alternative with nearly zero (only 0.02) carbon emmissions that contributes to mitigating climate change.

- Zero Ozone Depletion Potential (ODP=0)
- Lower Global Warming Potential (GWP=3)
- Less charge amount under the same capacity
- Higher Energy Efficiency



Triple Refrigerant Safety Protection

While R290 is classified as a mildly flammable refrigerant, strict safety protection measures are conducted to ensure your peace of mind. The electrical box is fully sealed, and all internal components comply with A3 explosion-proof standard, preventing any electrical ignition in case of refrigerant leaks. Besides, the Water-Refrigerant Separator prevents the refrigerant from entering the living space, further enhancing safety.

Triple Safety Measures

1. All electrical components comply with A3 explosion-proof standard
2. The electrical box is fullysealed to prevent refrigerant from entering
3. Water-Refrigerant separator with high discharge rate to prevent refrigerant from entering into the room



Energy Saving

1 piece of electricity input

5 times of heat output

Energy Efficiency

A+++



*SCOP: Seasonal Coefficient of Performance

High SCOP Performance

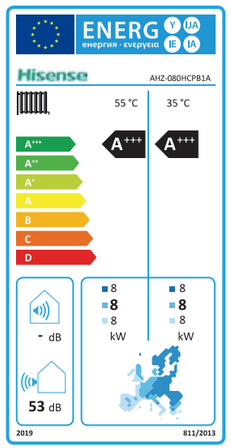
Boasting a High SCOP Performance of 5.0+, this remarkable rating ensures maximum heating performance while significantly reducing your energy consumption and carbon footprint.



A+++ Energy Efficiency

Hi-Therma II offers the best efficient solution for home heating and hot water supply. It has the top class A+++ energy classification at 35℃ and up to A+++ at 55℃, which saves on your energy bills and reduces impact on the environment.

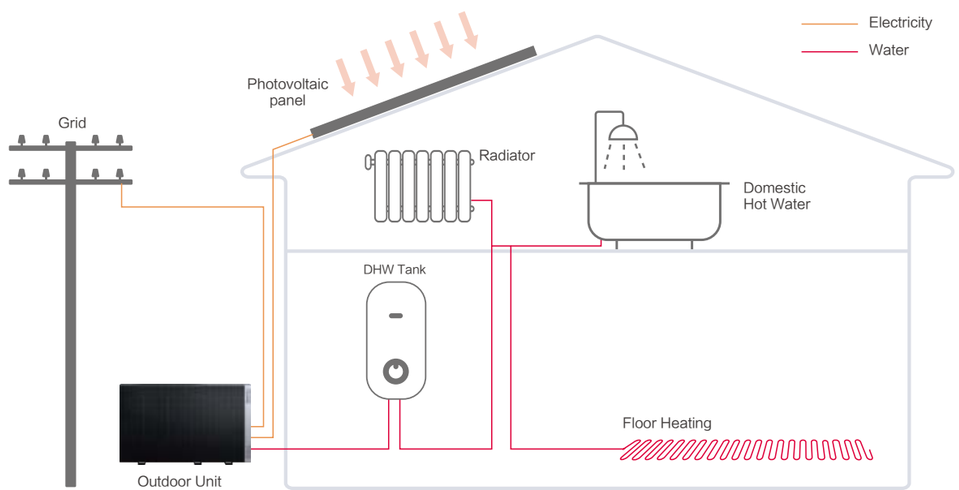




Energy Label

Maxmize Energy Utilization with PV Interlocked

Maximize your energy efficiency with photovoltaic (PV) storage interlocked, ensuring that renewable energy is utilized to its fullest potential, and leading to significant cost savings and environmental benefits.



4 Energy Utilization Scenarios (Optional) :

Day

During the daytime, solar panels power your home and store surplus energy in the home battery.



Night

At night, prioritize using the home battery to power your home.



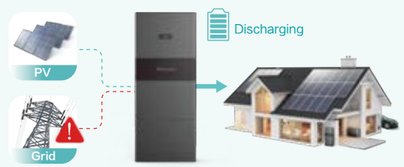
Peak / Off-peak time

Charge your home battery using off-peak grid rates. Then, use the energy stored in your battery to power your home when grid rates are high.



Grid Outage

Discharge during a power outage, functioning as backup power to ensure the normal operation of your home appliances.



Primary Use Secondary Use Restricted Conditions

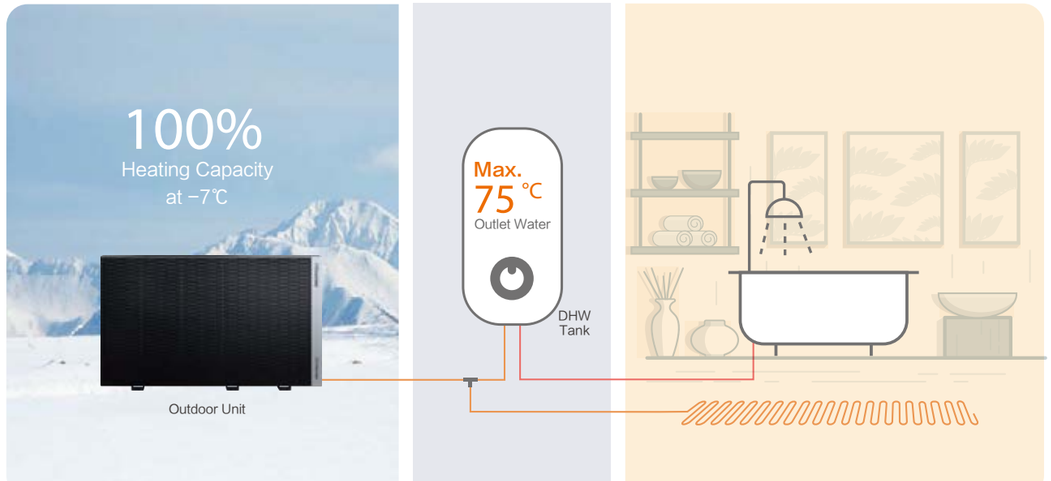
ECO Comfort

75°C
Outlet Water
at -10°C

100 %
Heating Capacity
Unaffected at -7°C

Consistent Warmth Guaranteed

Our cutting-edge system guarantees stable operation even when the outdoor temperature is as low as -25℃, and 100% heating capacity is guaranteed at -7℃, effortlessly meeting the heating demand in extreme cold areas.
With the ability to produce up to 75℃ outlet water even at -10℃, you can enjoy health and warmth with effectice sterilization.



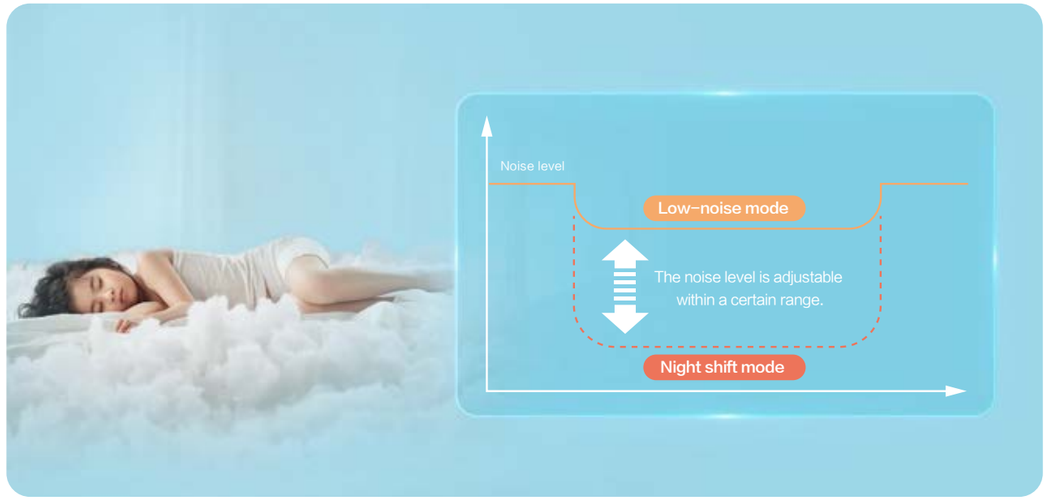
Wide Operation Range

Experience ultimate heating and cooling performance in every season, with outdoor ambient temperature range for heating operation from -25℃ to 35℃, for domestic hot water from -25℃ to 46℃, and for cooling from 5℃ to 48℃.



Whisper-quiet Operation

Hi-Therma II Series can work in a low-noise operation mode for optimal user comfort, with max.8 dB(A) can be reduced. Under the night shift mode, the operation period can be set according to individual needs, further lowering the sound pressure level to an ultra-quiet 36dB(A). All these modes can be adjusted with a simple touch on the controller.



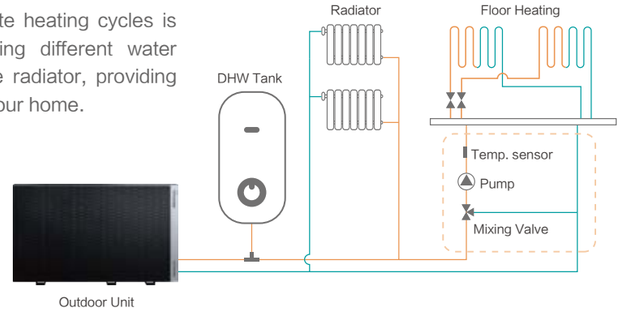
Bottom Anti-frosting Design

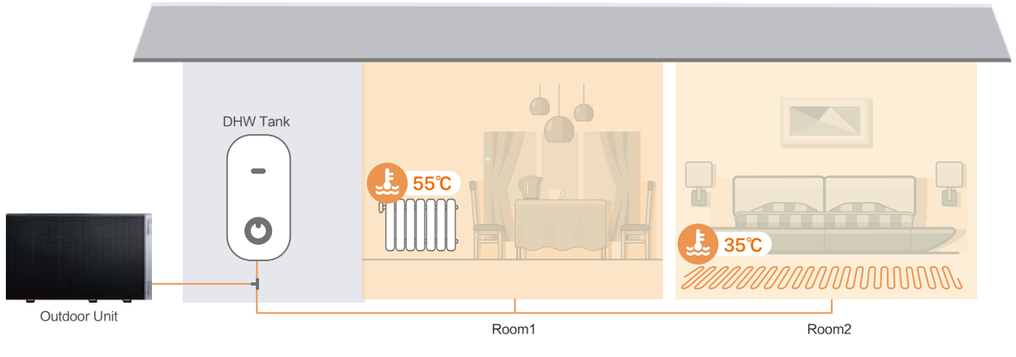
The specially designed anti-freezing section at the bottom of the heat exchanger prevents frost accumulation, and the bottom plate is equipped with electric heating to prevent ice blockage, maintaining seamless functionality of the unit throughout the year.



Two Separate Temp. Cycles

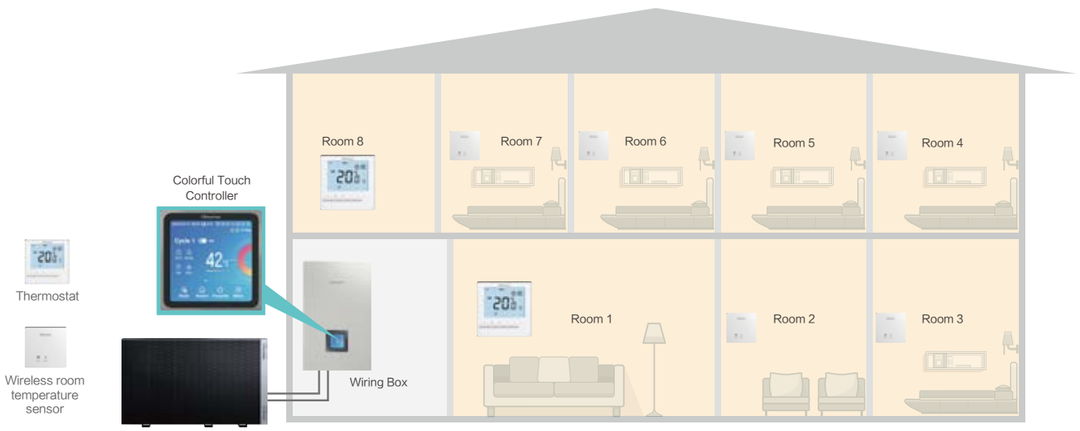
Two temperature zones through the separate heating cycles is possible with the mixing valve kit, enabling different water temperatures for underfloor heating and the radiator, providing customized comfort tailored to each area of your home.





8 Rooms Independent Temp. Control

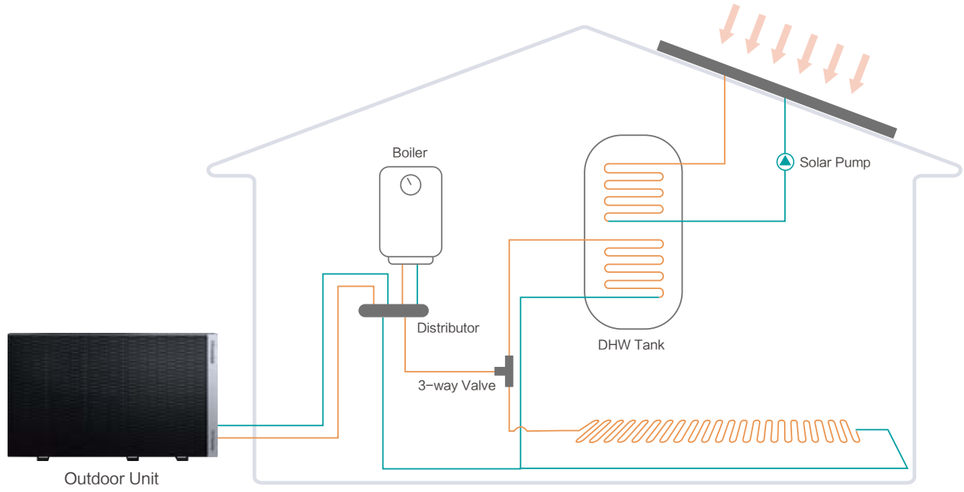
The temperature of up to 8 rooms can be independently controlled through installing temperature sensors or room thermostats in the rooms, satisfying the diverse needs of users.



Note: In one Hi-Therma system, up to 2 room thermostats and max. 6 wall mounted temp. sensors can be connected.

Interlock with 3rd Party Heat Source

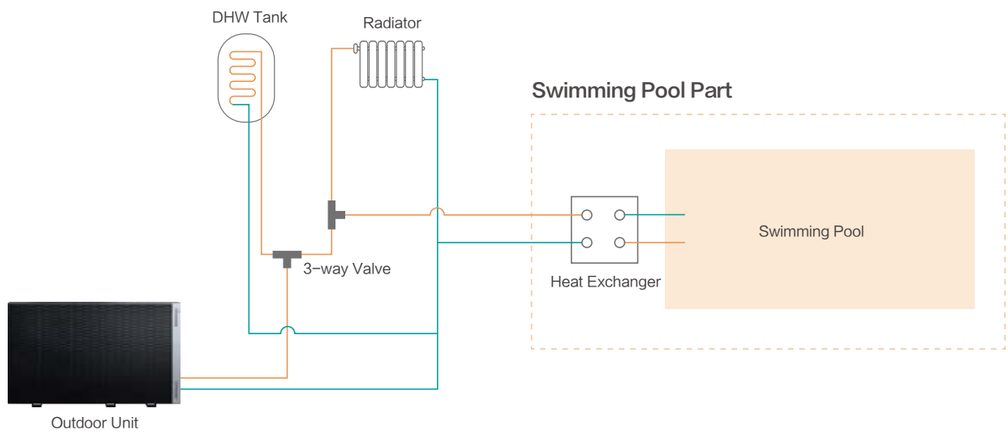
Hi-Therma II Series can interlock with the 3rd party heat source, like the solar thermal or the boiler which can work as an auxiliary heat source. Thanks to the interlock design, both the user experience and energy efficiency can be optimized.



Swimming Pool Heating Available

Enhance your swimming experience with the Hi-Therma II Series which is capable of heating your swimming pool. When the swimming pool operation mode is activated, the hot water will go into the swimming pool heat exchanger, allowing to heat the swimming pool water to a comfortable temperature between 24℃ and 33℃.





Easy Use

Hi-Cloud

Third-party Voice Assistant

works with the Google Assistant

WORKS WITH amazon alexa

ConnectLife

Software Upgrades

USB Plug-and-Play Configuration with Power Bank

Multiple Networking Options: Wireless or Wired

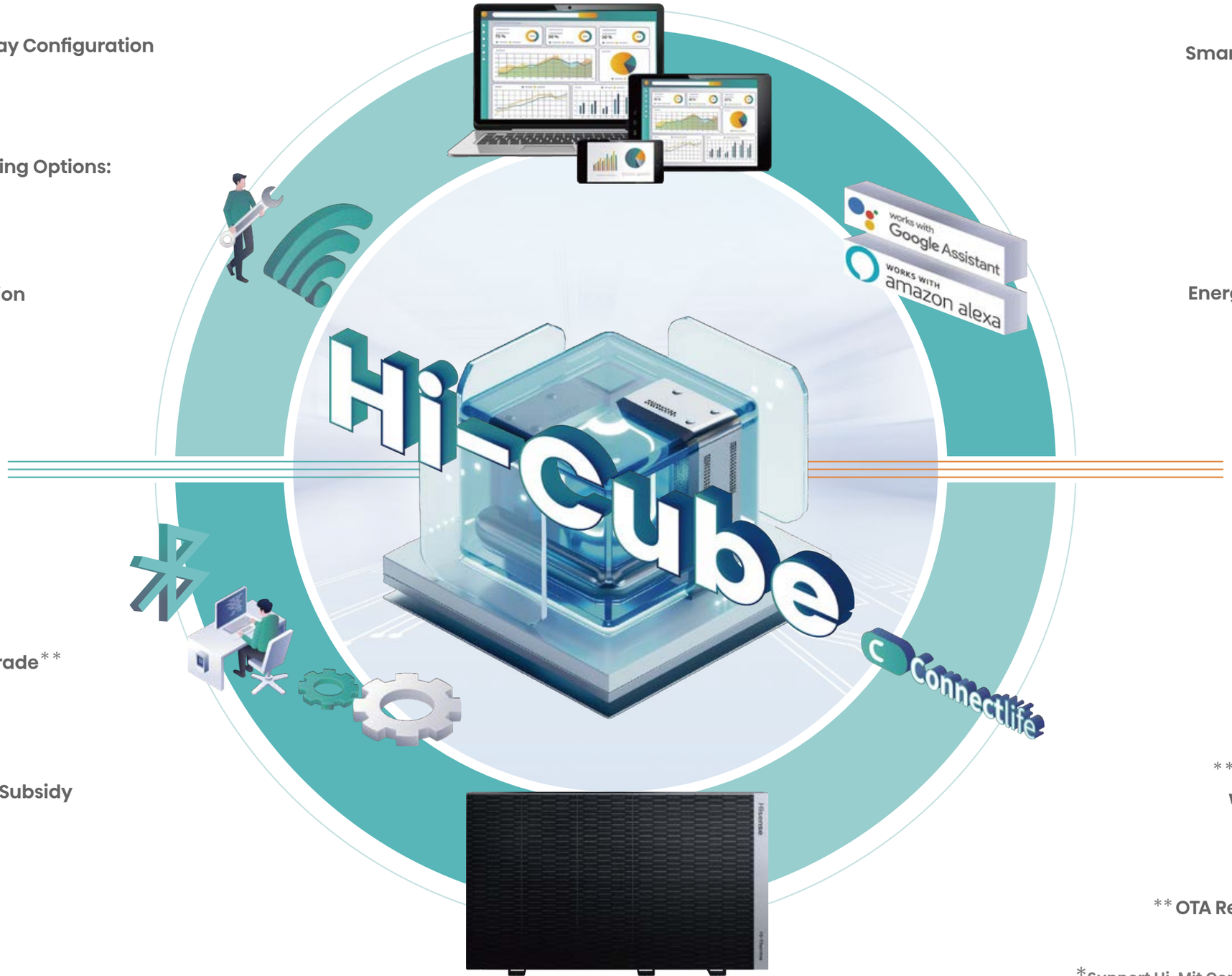
Modbus Integration Supported



Engineer

OTA Remote Upgrade**

Data Storage for Subsidy



Smart Control by App

*Voice Assistant

Energy Consumption Visualization



End User

Error Reminder

**Interconnection with ConnectLife

**OTA Realtime Upgrade

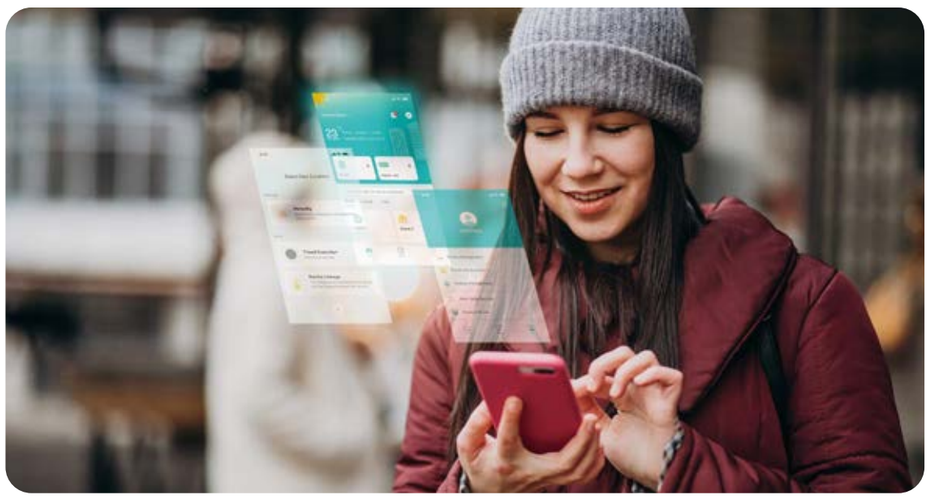
*Support Hi-Mit Connection

**Coming Soon

Smart Control by App

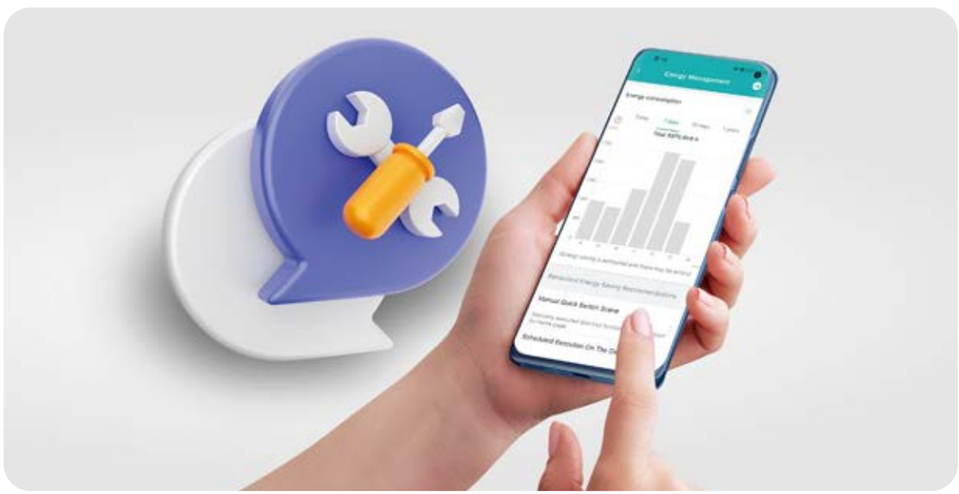
Whether you're at home or away, Hi-Cube keeps you connected, allowing you to manage and adjust settings effortlessly at anytime and anywhere, ensuring optimal performance and energy efficiency.

- on/off
- 14 languages available
- Multiple scenes setting (timer/holiday mode)
- Temp. setting of rooms, domestic hot water and water cycles
- Energy management display (daily/weekly/monthly/yearly)



Error Reminder

For any issues with Hi-Therma II, you can easily report them for repair with just one tap through the Hi-Mit, enjoying quick responses and professional services.
Our technicians can remotely assist in troubleshooting, reducing your waiting times.



Voice Assistant

When at home, you can wake up Hi-Therma II without having to walk over to it. Enjoy voice-controlled convenience to manage your home with compatibility for Alexa and Google Assistant.
Besides, it can also be compatible with the Connectlife home appliance integration control, where your fridge, washing machine, air conditioner, and more Hisense home appliances can be managed together in the same app.





*Note: ConnectLife is under development and will be available in Q4-2025

Energy Consumption Visualization

With advanced energy management features, Hi-Therma II enables you to check daily, weekly, and monthly electricity data, and set energy-saving modes accordingly, providing a more economical, efficient, and comfortable home.



USB Plug-and-Play Configuration

One-click Configuration Import: Just plug in the power bank and the unit powers up. With one click, you can import the configuration file, enabling the unit to be quickly activated.

One-click Configuration Export: Copy it to another machine of the same type for direct use, ensuring high operational reliability



USB
One-click plug-and-play configuration

Type C
Power bank charging port

Wi-Fi Module
Remote transmission and monitoring of operation data

Network Connections

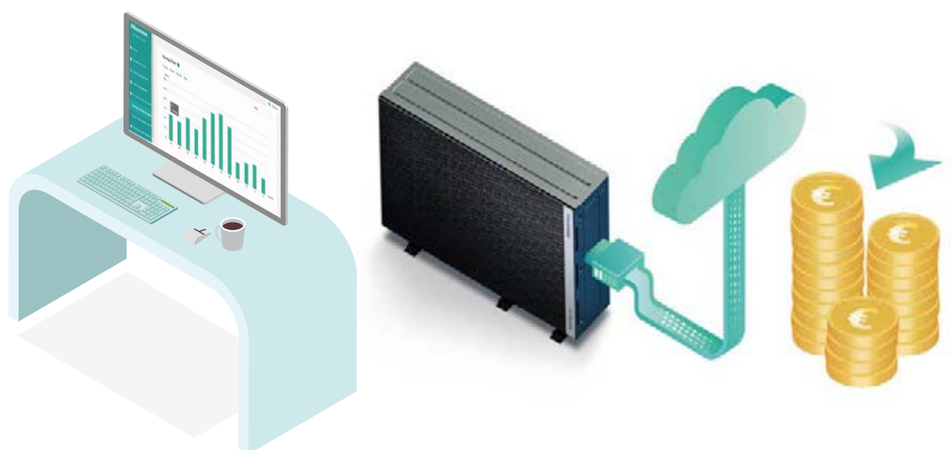
BLE

Wi-Fi

Wired

Data Storage for Worry-free Subsidies

The USB feature can also log and upload the unit's real-time operation data every hour for a period of 10years, which can be used to apply for energy efficiency subsidies from Germany's Federal Office for Economic Affairs and Export Control(BAFA).



**OTA Remote Upgrade

OTA remote or USB on-site upgrades for both indoor and outdoor units, keeping the system always cutting-edge and future-proof.



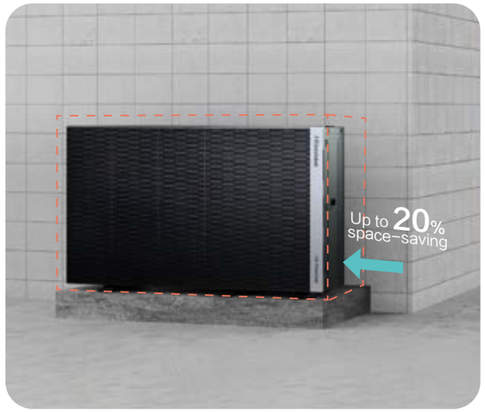
**Coming Soon

Easy Installation

Easy Transportation with Compact Body

With only 840mm in height and min.114kg in weight, the Hi-Therma II Series allows for effortless transportation in both small vans and large trucks, making it easy to handle and install.





Easy Installation with Base Brackets

With three independent base brackets, the unit can be easily installed horizontally in different ground conditions without removing the grille.



Detachable Modular Grilles

Previously, it was necessary to dismantle the entire grille when carrying out maintenance, which was time-consuming and troublesome. Now, the modular design allows service providers to remove only the section that needs repair. It not only improves the efficiency and convenience but also reduces the risk of accidental maloperations.



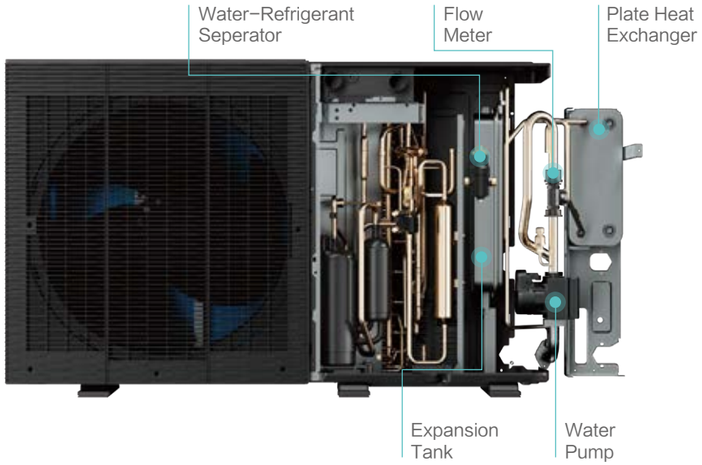
Convenient Curcuit Commissioning

There is no need for refrigerant operation on site, and the installation of the waterway can be completed by only one person, saving valuable time and labor costs while ensuring each component is thoroughly inspected for optimal system reliability.



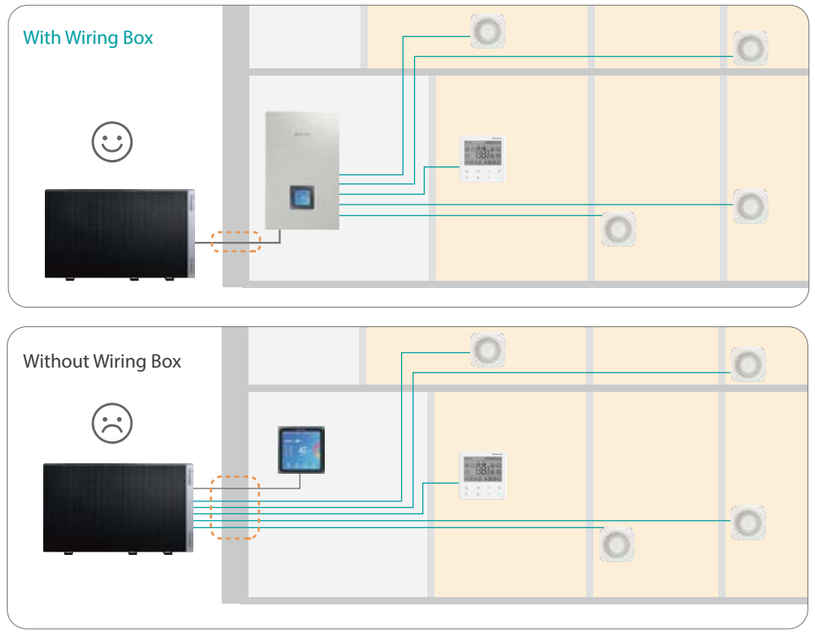
Integrated Waterway Components

Hi-Therma II series featuring all-in-one design allows easy installation without additional refrigerant piping work and refrigerant charge. Only the connection of water pipes is required on site, which greatly simplifies the on-site installation work.



Wiring Box Connection

The wiring box and the outdoor unit can be connected with just one cable, minimizing wall penetration and shortening total wiring length. It greatly reduces labor and time costs, making it more cost-effective and time-saving than ever before.





Specification

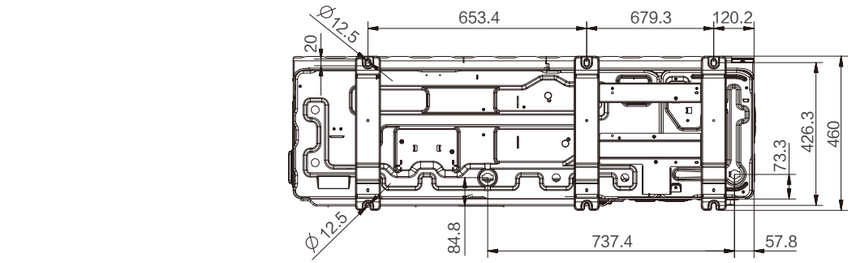


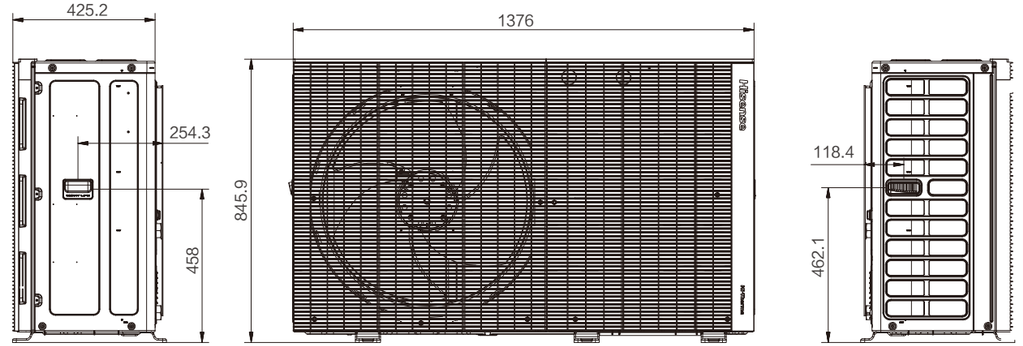
Outdoor Unit Mode					AHZ-050HCPB1A	AHZ-080HCPB1A	AHZ-100HCPB1A
Power Supply						1N, 220-240V, 50Hz	
	OAT (DB/WB)	IWT / OWT	-	-		Parameters	
Nominal Heating Operation*1	7 / 6 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	5.20	5.10	4.80
		47 / 55 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.15	3.20	3.10
	-7 / -8 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.00	3.00	2.80
		47 / 55 ºC	Capacity	kW	5.00	7.00	8.00
			COP	-	2.20	2.15	2.15
Nominal Cooling Operation*1	35 / -- ºC	12 / 7 ºC	Capacity	kW	5.50	8.00	9.00
			EER	-	3.30	3.30	3.30
		23 / 18 ºC	Capacity	kW	5.50	8.00	10.00
			EER	-	5.20	5.00	4.70
Seasonal Performance*2	Water Outlet 35ºC	SCOP		-	5.08	5.05	5.00
		Seasonal Heating Efficiency (ηs)		%	200	199	197
		Energy Rating		-	A+++	A+++	A+++
	Water Outlet 55ºC	SCOP		-	3.81	3.93	3.81
		Seasonal Heating Efficiency (ηs)		%	149	154	149
		Energy Rating		-	A++	A+++	A++
Sound Pressure*3	Normal Mode			dB(A)	42	42	43
	Low Noise Mode			dB(A)	38	38	39
	Night shift Mode			dB(A)	36	36	37
Sound Power	Normal Mode			dB(A)	53	53	54
Fan	Condenser Fan Quantity			-	1	1	1
	Air Flow Rate			m3/h	2870	3780	3780
Outer Dimensions	Height×Width×Depth			mm		845×1376×426	
Packing Dimensions	Height×Width×Depth			mm		1025×1500×570	
Net Weight				kg	114	122	122
Gross Weight				kg	137	145	145
Refrigerant System	Compressor		Type	-		Rotary	
			Quantity	-		1	
	Refrigeration Oil		Type	-		PAG VG60	
			Charge	L	0.6	0.83	0.83
	Refrigeration Charge		Type	-		R290	
			Before Shipment	kg	0.90	0.98	0.98
Operation Range	Heating	Outdoor ambient temperature		ºC (DB)		-25~35	
		Outlet water temperature		ºC		20~75	
	Cooling	Outdoor ambient temperature		ºC (DB)		5~48	
		Outlet water temperature		ºC		5~22	
	DHW	Outdoor ambient temperature		ºC (DB)		-25~46	
		Tank water temperature		ºC		30~75	
Water Flow Rate	IWT: 30 ºC / OWT: 35 ºC ΔT: 5 ºC			m3/h	0.86	1.38	1.72
DC Water pump	Type			-		Inverter	
	Max. Lift Pressure			m		9	
	Max. Water Flow Rate			m3/h		4.5	
	Max. Power Input			W		95	
Valve	Safety Valve			-		Yes (3 bar)	
	Shut-off Valve			in.		1", DN25	
Water Installation	Connection type			-		Screwed connection	
	Shutdown valves			mm (in.)		G1"(male)-G1"(female)	
	Inlet pipe diameter			mm (in.)		G1"(female)	
	Outlet pipe diameter			mm (in.)		G1"(female)	

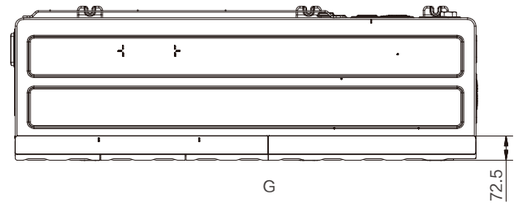
*1: Heating/Cooling nominal performances at full load conditions according to EN 14511. heating performance are integrated (included defrost cycles).
*2: According to EN14825. Climate Zone AVERAGE. Energy efficiency scale from A +++ to D.
*3: The sound power level is measured according to EN12102 under EN14825 (part load) conditions.The above noise values are measured in the anechoic chamber without reflected echo, therefore the impact of the reflected echo must be taken into consideration at the scene.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature

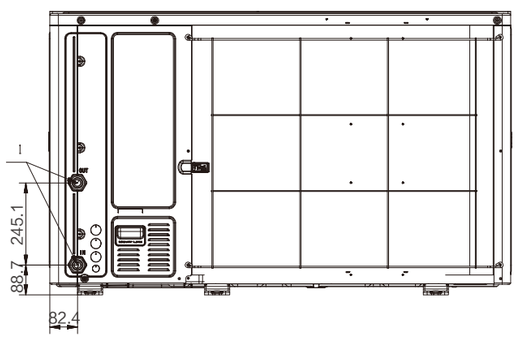
Dimensions

Unit: mm









Specification



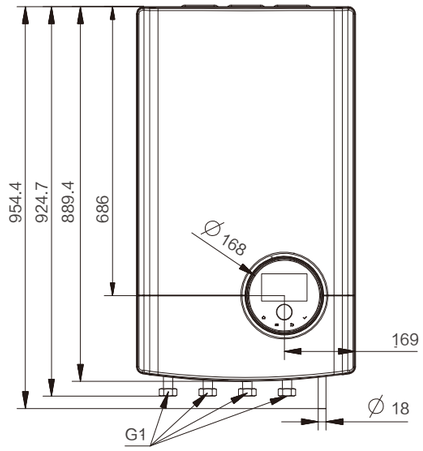
Outdoor Unit Mode					AHW-050HCPB1	AHW-080HCPB1	AHW-100HCPB1
Power Supply					1N, 220-240V, 50Hz		
	OAT (DB/WB)	IWT / OWT	-	-	Parameters		
Nominal Heating Operation*1	7 / 6 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	5.20	5.10	4.80
		47 / 55 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.15	3.20	3.10
	-7 / -8 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.00	3.00	2.80
		47 / 55 ºC	Capacity	kW	5.00	7.00	8.00
			COP	-	2.20	2.15	2.15
Nominal Cooling Operation*1	35 / -- ºC	12 / 7 ºC	Capacity	kW	5.50	8.00	9.00
			EER	-	3.30	3.15	3.10
		23 / 18 ºC	Capacity	kW	5.50	8.00	10.00
			EER	-	5.20	5.00	4.70
Seasonal Performance*2	Water Outlet 35ºC	SCOP		-	5.08	5.01	4.89
		Seasonal Heating Efficiency (ηs)		%	200	197	192
		Energy Rating		-	A+++	A+++	A+++
	Water Outlet 55ºC	SCOP		-	3.75	3.73	3.61
		Seasonal Heating Efficiency (ηs)		%	147	146	142
		Energy Rating		-	A++	A++	A++
Sound Pressure*3	Normal Mode			dB(A)	42	42	43
	Low Noise Mode			dB(A)	38	40	40
	Night shift Mode			dB(A)	37	38	38
Sound Power	Normal Mode			dB(A)	54	54	55
Fan	Condenser Fan Quantity			——	1	1	1
	Air Flow Rate			m3/h	2870	3780	3780
Outer Dimensions	Height×Width×Depth			mm	845×1100×426		
Packing Dimensions	Height×Width×Depth			mm	1135×1235×570		
Net Weight				kg	87	95	95
Gross Weight				kg	111	119	119
Refrigerant System	Compressor		Type	——	Rotary	Rotary	Rotary
			Quantity	——	1	1	1
	Refrigeration Oil		Type	——	PAG VG60	PAG VG60	PAG VG60
			Charge	L	0.6	0.83	0.83
	Refrigeration Charge		Type	——	R290	R290	R290
			Before Shipment	kg	0.90	0.98	0.98
Minimum piping length				m	4	4	4
Operation Range	Heating	Outdoor ambient temperature		ºC (DB)	-25~35	-25~35	-25~35
		Outlet water temperature		ºC	20~75	20~75	20~75
	Cooling	Outdoor ambient temperature		ºC (DB)	5~48	5~48	5~48
		Outlet water temperature		ºC	5~22	5~22	5~22
	DHW	Outdoor ambient temperature		ºC (DB)	-25~46	-25~46	-25~46
		Tank water temperature		ºC	30~75	30~75	30~75
Water Flow Rate	IWT: 30 ºC / OWT: 35 ºC ΔT: 5 ºC			m3/h	0.86	1.38	1.72
Water Installation	Connection type			-	Screwed connection		
	Shut-off valves			mm (in.)	G 1" (female) - G 1" (female)		
	Inlet pipe diameter			mm (in.)	G 1" (female)		
	Outlet pipe diameter			mm (in.)	G 1" (female)		

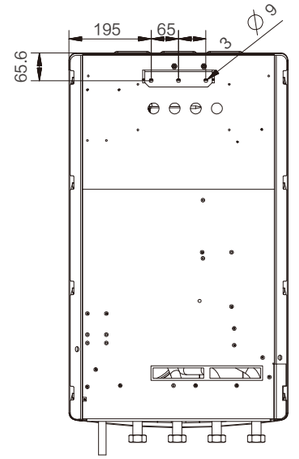
Indoor Unit Mode			AHM-100HCWBAA
Power Supply			1N, 220-240V, 50Hz
Outer Dimensions (with connections)	Height×Width×Depth	mm	890×520×320
Packing Dimensions	Height×Width×Depth	mm	419×1160×650
Net Weight		kg	40
Gross Weight		kg	46
DC Water pump	Type	-	Inverter
	Max. Lift Pressure	m	9
	Max. Water Flow Rate	m3/h	4.5
	Max. Power Input	W	95
Valve	Safety Valve	-	Yes (3 bar)
	Shut-off Valve	in.	1", DN25
Piping connection	Connection type	-	Screwed connection
	Inlet pipe diameter (from oudoor unit)	in.	G 1" (female)
	Outlet pipe diameter (to outdoor unit)	in.	G 1" (female)
	Inlet pipe diameter (from space heating and water heating)	in.	G 1" (female)
	Outlet pipe diameter (to space heating and water heating)	in.	G 1" (female)
Noise level (sound pressure)		dB(A)	30
Noise level (sound power)		dB(A)	44

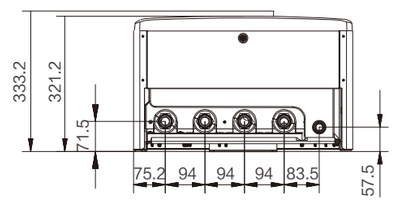
*1: Heating/Cooling nominal performances at full load conditions according to EN 14511. heating performance are integrated (included defrost cycles).
*2: According to EN14825. Climate Zone AVERAGE. Energy efficiency scale from A +++ to D.
*3: The sound power level is measured according to EN12102 under EN14825 (part load) conditions.The above noise values are measured in the anechoic chamber without reflected echo, therefore the impact of the reflected echo must be taken into consideration at the scene.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature

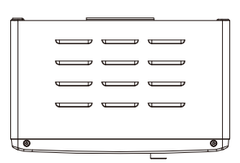
Dimensions

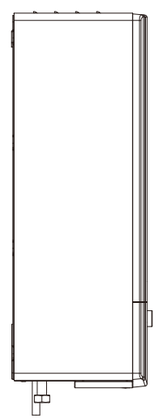
Unit: mm

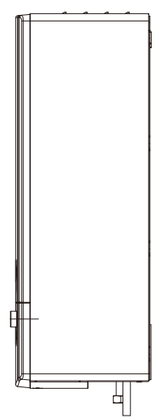












Specification



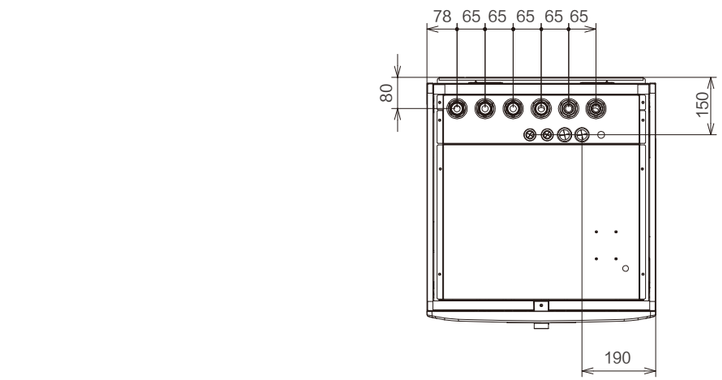
Outdoor Unit Mode					AHW-050HCPB1	AHW-080HCPB1	AHW-100HCPB1
Power Supply					1N, 220-240V, 50Hz		
	OAT (DB/WB)	IWT / OWT	-	-	Parameters		
Nominal Heating Operation*1	7 / 6 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	5.20	5.10	4.80
		47 / 55 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.15	3.20	3.10
	-7 / -8 ºC	30 / 35 ºC	Capacity	kW	5.00	8.00	10.00
			COP	-	3.00	3.00	2.80
		47 / 55 ºC	Capacity	kW	5.00	7.00	8.00
			COP	-	2.20	2.15	2.15
Nominal Cooling Operation*1	35 / -- ºC	12 / 7 ºC	Capacity	kW	5.50	8.00	9.00
			EER	-	3.30	3.15	3.10
		23 / 18 ºC	Capacity	kW	5.50	8.00	10.00
			EER	-	5.20	5.00	4.70
Seasonal Performance*2	Water Outlet 35ºC	SCOP		-	5.08	5.01	4.89
		Seasonal Heating Efficiency (ηs)		%	200	197	192
		Energy Rating		-	A+++	A+++	A+++
	Water Outlet 55ºC	SCOP		-	3.75	3.73	3.61
		Seasonal Heating Efficiency (ηs)		%	147	146	142
		Energy Rating		-	A++	A++	A++
Sound Pressure*3	Normal Mode			dB(A)	42	42	43
	Low Noise Mode			dB(A)	38	40	40
	Night shift Mode			dB(A)	37	38	38
Sound Power	Normal Mode			dB(A)	54	54	55
Fan	Condenser Fan Quantity			——	1	1	1
	Air Flow Rate			m3/h	2870	3780	3780
Outer Dimensions	Height×Width×Depth			mm	845×1100×426		
Packing Dimensions	Height×Width×Depth			mm	1135×1235×570		
Net Weight				kg	87	95	95
Gross Weight				kg	111	119	119
Refrigerant System	Compressor		Type	——	Rotary	Rotary	Rotary
			Quantity	——	1	1	1
	Refrigeration Oil		Type	——	PAG VG60	PAG VG60	PAG VG60
			Charge	L	0.6	0.83	0.83
	Refrigeration Charge		Type	——	R290	R290	R290
			Before Shipment	kg	0.90	0.98	0.98
Minimum piping length				m	4	4	4
Operation Range	Heating	Outdoor ambient temperature		ºC (DB)	-25~35	-25~35	-25~35
		Outlet water temperature		ºC	20~75	20~75	20~75
	Cooling	Outdoor ambient temperature		ºC (DB)	5~48	5~48	5~48
		Outlet water temperature		ºC	5~22	5~22	5~22
	DHW	Outdoor ambient temperature		ºC (DB)	-25~46	-25~46	-25~46
		Tank water temperature		ºC	30~75	30~75	30~75
Water Flow Rate	IWT: 30 ºC / OWT: 35 ºC ΔT: 5 ºC			m3/h	0.86	1.38	1.72
Water Installation	Connection type			-	Screwed connection		
	Shut-off valves			mm (in.)	G 1" (female) - G 1" (female)		
	Inlet pipe diameter			mm (in.)	G 1" (female)		
	Outlet pipe diameter			mm (in.)	G 1" (female)		

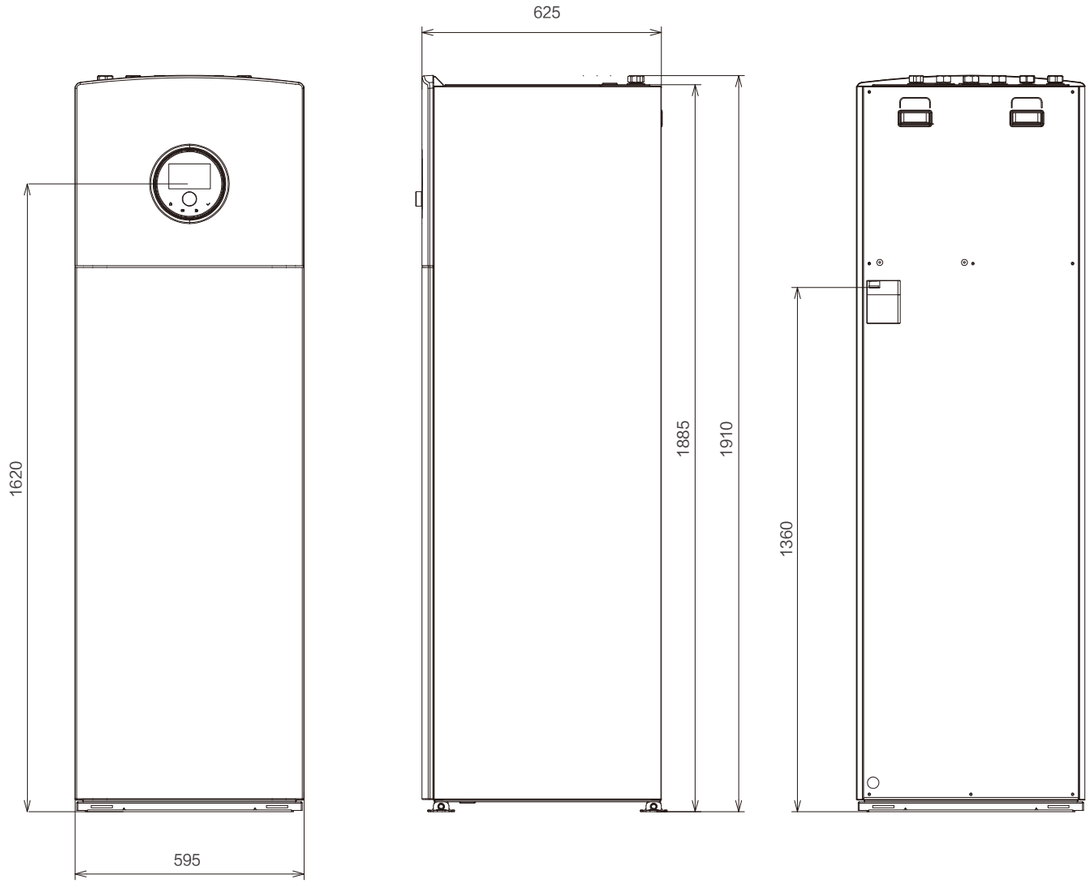
Indoor Unit Mode			AHS-100HCWBAA-23
Power Supply			1N, 220-240V, 50Hz
Outer Dimensions (with connections)	Height×Width×Depth	mm	1885×590×625
Packing Dimensions	Height×Width×Depth	mm	2070×700×710
Net Weight		kg	121
Gross Weight		kg	141
DC Water pump	Type	-	Inverter
	Max. Lift Pressure	m	9
	Max. Water Flow Rate	m3/h	4.5
	Max. Power Input	W	95
Valve	Safety Valve	-	Yes (3 bar)
	Shut-off Valve	in.	1", DN25
Piping connection	Connection type	-	Screwed connection
	Inlet pipe diameter (from oudoor unit)	in.	G 1" (female)
	Outlet pipe diameter (to outdoor unit)	in.	G 1" (female)
	Inlet pipe diameter (from space heating and water heating)	in.	G 1" (female)
	Outlet pipe diameter (to space heating and water heating)	in.	G 1" (female)
DHW pipes connection	Connection type	-	Screwed connection
	Inlet pipe diameter	in.	G 3/4" (female)
	Outlet pipe diameter	in.	G 3/4" (female)
DHW tank rated volume		L	230
Noise level (sound pressure)		dB(A)	28
Noise level (sound power)		dB(A)	44

*1: Heating/Cooling nominal performances at full load conditions according to EN 14511. heating performance are integrated (included defrost cycles).
*2: According to EN14825. Climate Zone AVERAGE. Energy efficiency scale from A +++ to D.
*3: The sound power level is measured according to EN12102 under EN14825 (part load) conditions.The above noise values are measured in the anechoic chamber without reflected echo, therefore the impact of the reflected echo must be taken into consideration at the scene.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature

Dimensions

Unit: mm





Thermal tank

Hot water heating installation options

Why Hot Water Tank is an optimal solution for domestic use?

Whether your requirement is only hot water or integrate it with solar systems, we provide you with unparalleled solutions that prioritize most convenience, energy effectiveness, and reliability.

Convenience

Options are available in stainless steel with capacities of 200 and 300 liters HDHWT-200/300L30HE.

Effectiveness

Top-notch insulation ensures minimal heat loss. It can be used as a single unit or as part of an integrated system.

Reliability

To prevent the growth of bacteria, the unit can heat water up to 75℃ at regular intervals.



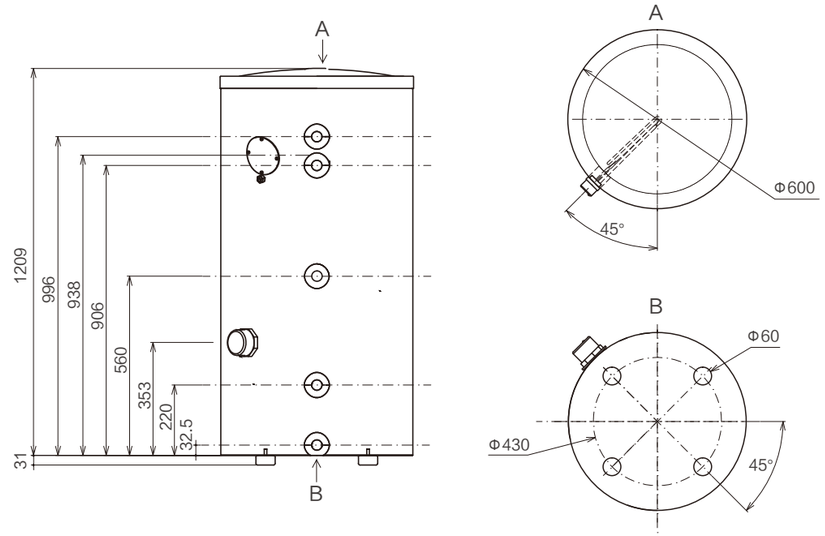
Specification

Model			HDHWT-200L30HE	HDHWT-300L30HE
Casing	Colour		Neutral white	
	Material		Epoxy coated steel / Epoxy-coated mild steel	
Tank	Empty weight	kg	49	60
	Net water volume	L	185	260
	Material	—	DUPLEX 2205	
	Maximum water temperature	℃	75	
	Energy efficiency class		B	
	Operating pressure	bar	6	
	max pressure	bar	10	
Heat exchanger	Tube material		Stainless steel (SUS316L)	
	Face area	m^2	1.8	2.07
	Internal coil volume	L	9.9	11.4
	Operating pressure	bar	3	
Booster heater	Capacity	kW	3	
Power supply	Phase/Frequency/Voltage	V/Hz	1N, 220~240V, 50Hz	
Protection method			Temperature and pressure relief valve (95℃/0.6Mpa)	
Safety Thermostat	Automatic Reset	℃	75	
	Manual Reset	℃	87	

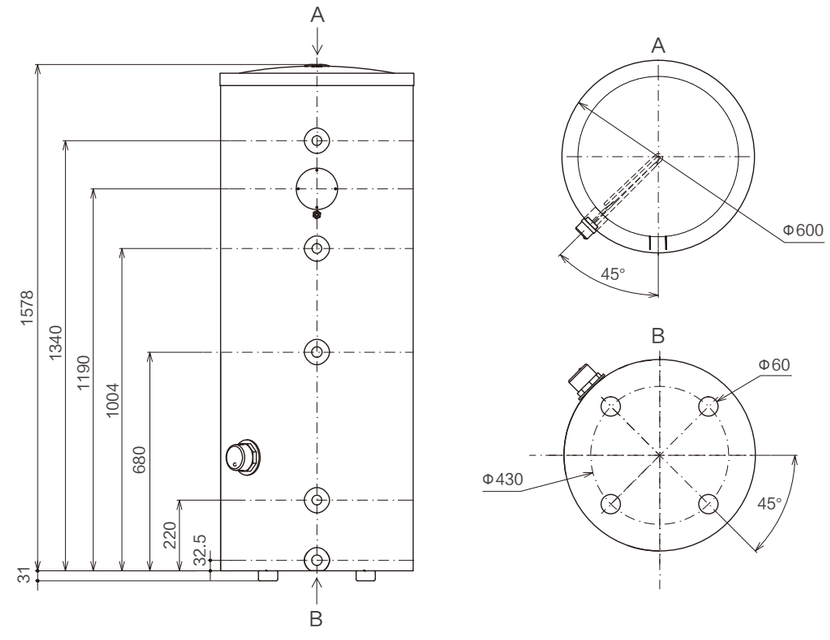
Dimensions

Unit: mm

200L



300L



Engineering Tools

Hi-Therma Designer

Hi-Therma Designer is a specialized program for choosing Hisense ATW heat pump products, enabling an accurate and quick model selection for projects. It's an online tool for quick and easy access, and fully compatible with computer, tablet and smartphone. The user could open and edit the project at any time and anywhere.

◆ User-friendly operation

This program provides a lot of pictures, schemas and explanations. With less input and choice, the user can get the proper selection quickly and easily.

◆ CO_2 emission calculation

The user can calculate the CO_2 emission that can be reduced from conventional heating systems with other energy.

◆ Selection comparison

Through this function, users can compare two different selections for one project, so as to get the best solution.

◆ Energy consumption calculation

The software includes the build-in climate history data for hundreds of cities, which enabling easy load calculation. Furthermore, the user can calculate the annual energy consumption and efficiency.

◆ Noise level assessment

The noise level to the closed house, such as neighbor's house, could be assessed with a simulation according to the outdoor unit installation.

◆ Customization of accessories

The installer can input and customize the accessories which is used to buy locally.

◆ Report

A professional report with full information and quotation can be output to submit to clients. The user can select the part of full size report to make a short report.

https//:www.hitherma-designer.com



Features Overview

Environment Friendly


Award-Winning Futuristic Design


Interior Aesthetics Design



R290 Eco-Friendly Refrigerant


Triple Refrigerant Safety Protection

Energy Saving


High SCOP Performance



A+++ Energy Efficiency


Maxmize Energy Utilization with PV Interlocked

ECO Comfort



Up to 75℃ Outlet Water at -10℃



-7℃ Heating Capability Unaffected


Wide Operation Range


Whisper-quiet Operation


Bottom Anti-frosting Design


Two Separate Temp. Cycles



Interlock with 3rd Party Heat Source


Swimming Pool Heating Available

Easy Use


Remote Control Anywhere and Anytime


smart control with voice assistant （Hi-Mit）


Interconnection with ConnectLife （coming soon）


Energy Consumption Visualization （Hi-Mit）



OTA Remote Software Upgrade （coming soon）



USB Plug-and-Play Configuration


Multiple Networking Methods


Data Storage for Subsidies

Easy Installation


Easy Transportation with Compact Body


Easy Installation with Adjustable Base Brackets


Detachable Modular Grilles


Convenient Curcuit Commissioning


Integrated Waterway Components


Wiring Box

NOTE

NOTE

NOTE

Hisense HVAC

Reimagine your solution