Hisense

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ISO14001 ISO9001 ISO81001 HCAC-LL-ATWUK202310

Hisense

AIR TO WATER HEAT PUMP

Hi-Therma Monobloc

reddot winner 2022

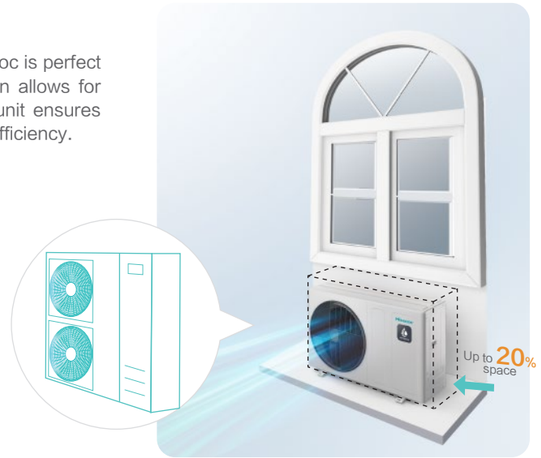
reddot winner 2022

Red Dot Award Casing Design

The 2022 Red Dot award–winning outdoor unit is recognised for its exceptional design, featuring a classic grey color and a screwless front panel that maintains its appearance over time, while also preventing unsightly rust stains caused by long–term exposure to various weather conditions. The compact machine size also adapts to a wide variety of space layouts.

Compact Size and Easy Transportation

Compact and measuring only 84cm in height, the Hi–Therma Monobloc is perfect for easy placement on residential house walls. Its single fan design allows for effortless transportation in both small vans and large trucks. This unit ensures uninterrupted sunlight through windows and offers convenience and efficiency.



High Efficiency A+++ *1

Hi–Therma offers the best and most efficient solution for home heating and hot water supply. It has the top class A+++ energy classifi–cation under the low–temperature water condition, and A++ under the mid–temperature water condition, which ensures you make savings on your energy bills, reducing electricity consumption and the impact on the environment.

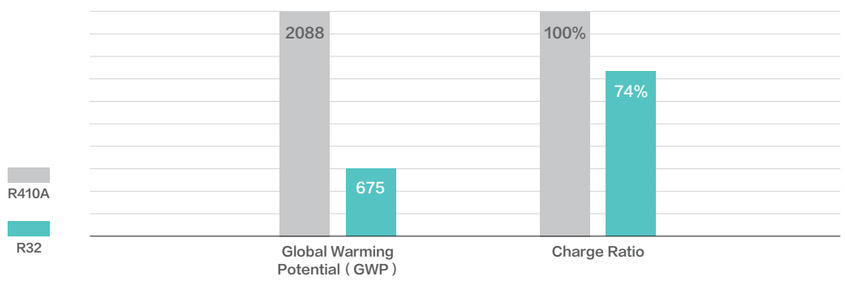
Eco–Friendly Refrigerant R32

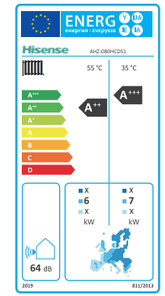
The R32 Refrigerant meets the F–gas regulation standards described in EU regulation 517/2014. The Hisense Hi–Therma heat pump system adopts and fully utilises the R32 Refrigerant, which is a good solution for achieving the new European CO_2 emission targets.

Features

- Zero Ozone Depletion Potential (ODP)
- Lower Global Warming Potential (GWP)
- Less charge amount under the same capacity
- Single component refrigerant, easy to handle and recycle

R-32





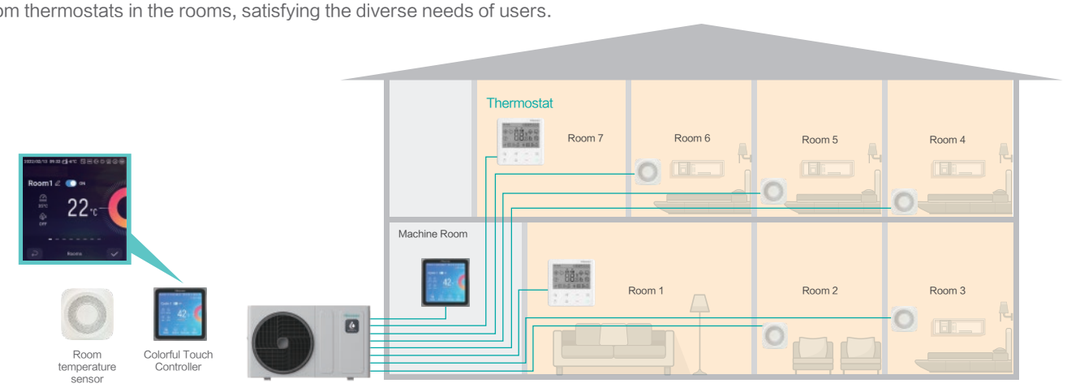
Notes: 1.*1 SCOP up to 5.00 (Average climate / Low temp. application) : A+++, SCOP up to 3.42 (Average climate / Mid temp. application) : A++
2. Followed by (EU) No 811/2013, (EU) No 813/2013, (EU) No 814/2013

High–Efficiency Water Pump for Convenient and Cost–effective

Hi–Therma Monobloc unit features a built–in water pump with a maximum lift of up to 12.5 meters, eliminating the need for a separate external pump. This provides convenience and saves on installation costs, making it ideal for two–story or larger residential properties.

Up to 7 Rooms with Independent Temperature Control

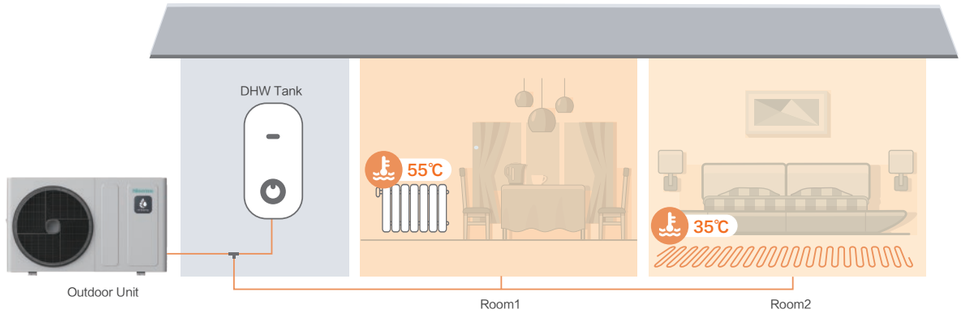
In one Hi-Therma system, the temperature of up to 7 rooms can be independently controlled through installing temperature sensors or room thermostats in the rooms, satisfying the diverse needs of users.



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

Two Separate Temperature Cycles

Two temperature zones through the separate heating cycles are possible with the mixing valve kit, enabling different water temperatures for underfloor heating and the radiators.



Simplified Installation

Hi-Therma Monobloc unit 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.

Water side items included in the Monobloc

PHE
(Plate Heat Exchanger)

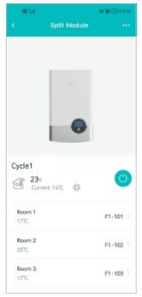
Expansion Vessel

Water Pump

High head and large water flow pump

Smart App Control

Through the smart app, users can access the Hi-Therma system easily to control the room temperature at anytime and anywhere.



Hi-Mit II Adaptor

Colorful Touch Controller *

Access and customise your device's important settings with ease through the colorful touch controller, enabling precise temperature and mode adjustments with just a few taps.

HSXM-FE01

- Sleek and elegant design
- Compact, measures only 90 × 90mm
- Intuitive touch-button control

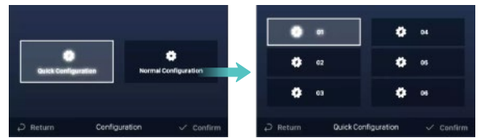
Sliding Interface

Quick switching between different interfaces can be easily achieved by sliding the screen left and right.

One-click Configuration

Configure your device with ease using the new "One-click Configuration" feature that allows for quick setup in just 3 simple steps, with the ability to preset up to 6 scenarios for ultimate convenience and simplicity. *

*Note: Only supports pre-stored maximum of 6 scenarios.



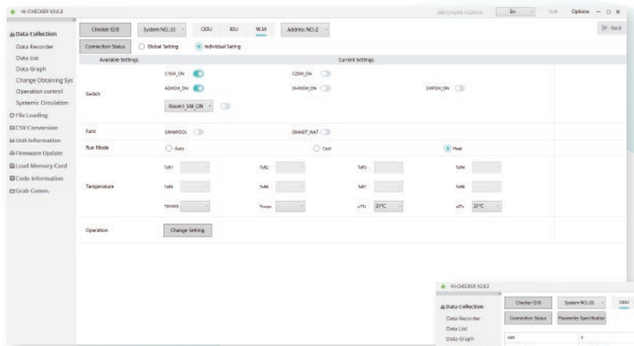
Hi-Checker

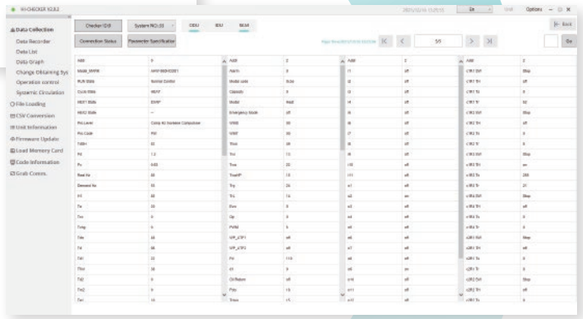
Intelligent service tool, improve your service

Hi-Checker is a plug and play service tool, with which service engineers can access the system and monitor operation status or data, very convenient for system communication and maintenance.
Besides, it features cloud-based management, easy to access operation status remotely.

Small and Portable Body | Remote Access | Black Box Function | Powerful Chats | OTA Update

Different water cycles in multiple rooms control





Up to 130 parameters of the water system can be displayed intuitively.

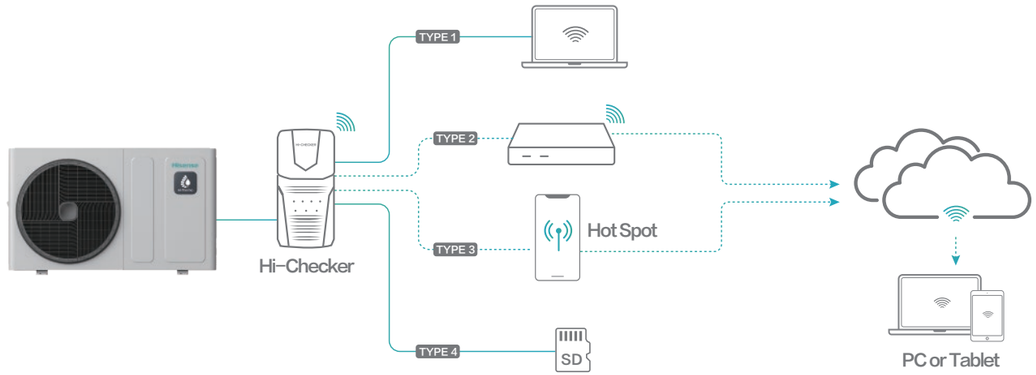
Easy to use

- Compact size which allows high portability and space saving.
- Capable to slot in a 32G memory card for data collection and storage. Also the memory card and card reader are standard with Hi-Checker.
- Multiple choices of power supply types. It can be powered by the standard adapter (DC 5V), computers or power banks.
- Support OTA update, ensuring the software is always up to date.

Easy to access

4 ways to access the operation data

- Conventional connection type. The simplest and reliable way by just connecting the Hi-Checker to your computer directly through USB.
- Internet connection type. Be connected to a stable Wi-Fi signal to achieve operation data and status monitoring anytime and anywhere.
- Hotspot connection type. Be connected to a temporary hotspot signal from the smartphone, allowing the Hi-Checker to remotely monitor the operation data when there is no stable Wi-Fi signal on site.
- SD card storage type. Hi-Checker equipped with SD card can be connected to the air conditioning system all the time, so that all the operation data can be stored in the card for later analysis.



Specifications

Model	Size (L × W × H) mm	Net Weight (g)	Power Suppy
HCCS-H64H2C2M	138 × 68 × 28	130	5V⎓500mA

High Efficiency and Excellent Performance

- R32 Eco-friendly refrigerant
- A+++ energy efficiency
- Interlock with 3rd party heat source
- −25℃ stable operation
- 75℃ domestic hot water
- Max 65℃ outlet water temperature
- Smart grid interlock and PV enabled
- High-efficiency DC pump

User Convenience

- Red Dot award design
- Two separate temp. cycles
- Up to 7 rooms with independent temp. control
- Low noise operation
- Night shift mode operation

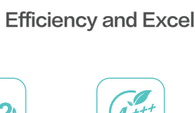
High Intelligence

- Smart App control
- Intuitive interface of controllers
- Smart hint

Easy Installation and Maintenance

- Centralised control and individual control
- Screed drying
- Swimming pool heating
- Visual display of energy consumption
- Hi-Checker
- Water pressure and water flow monitoring
- Long piping design

Product Lineup Overview

	Series	Max Temp. of Outlet Water	Power Supply	Capacity
Hi-Therma	R32  Monobloc	60℃	AC1Φ, 220~240V/50Hz	4.4 kW
				8.0 kW
	R32  Monobloc	65℃	AC1Φ, 220~240V/50Hz (AC 3Φ, 380~415V/50Hz)	10.0 kW
				12.0 kW
				14.0 kW
				16.0 kW

Specification

Monobloc (4~8kW)

041-K021-03/04

Model					AHZ-044HCDS1	AHZ-080HCDS1
Power Supply					220-240V ~ 50Hz	
Heating Operation*1	OAT (DB/WB) 7/6℃	IWT/OWT 30 / 35℃	Capacity(Min./Nom./Max.)	kW	1.85 / 4.40 /7.00	2.10/ 8.00 / 11.0
			COP (Nom.)	–	5.10	4.90
		IWT/OWT 47 / 55℃	Capacity (Nom./Max.)	kW	4.40 / 6.00	8.00 / 9.00
			COP (Nom.)	–	3.00	2.80
	OAT (DB/WB) −7 / −8℃	IWT/OWT 30 / 35℃	Capacity (Nom./Max.)	kW	4.40 / 5.00	5.80 / 7.30
			COP (Nom.)	–	3.26	3.14
		IWT/OWT 47 / 55℃	Capacity (Nom./Max.)	kW	4.00 / 4.20	5.00 / 6.40
			COP (Nom.)	–	1.97	1.94
Cooling Operation*1	OAT (DB/WB) 35/−℃	IWT/OWT 12 / 7℃	Nominal Capacity	kW	4.40	6.50
			EER	–	4.00	3.35
		IWT/OWT 23 / 18℃	Nominal Capacity	kW	5.60	7.00
			EER	–	5.60	5.10
Seasonal Performance*2	Water Outlet 35℃	SCOP		–	5.17	5.00
		Seasonal Heating Efficiency (η s)		%	204	197
		Energy Rating		–	A+++	A+++
	Water Outlet 55℃	SCOP		–	3.47	3.50
		Seasonal Heating Efficiency (η s)		%	136	137
		Energy Rating		–	A++	A++
Sound Pressure*3	Normal Mode (Heating/Cooling)			dB(A)	47/47	50/47
	Low Noise Mode (Heating/Cooling)			dB(A)	40/40	43/43
	Night Shift Mode (Heating/Cooling)			dB(A)	36/36	39/39
Sound Power	Normal Mode (Heating/Cooling)			dB(A)	61/61	64/61
Fan	Condenser Fan Quantity			—	1	1
	Air Flow Rate			m^3/h	2700	2700
Max. Running Current				A	10.53	17.53
Recommended Fuse				A	16	20
Outer Dimensions	Height × Width × Depth			mm	815 × 1270 × 340	815 × 1270 × 340
Packing Dimensions	Height × Width × Depth			mm	890 × 1400 × 440	890 × 1400 × 440
Net Weight				kg	88	88
Gross Weight				kg	104	105
Refrigerant System	Compressor	Type		—	Rotary	
	Refrigerant Charge	Type		—	R32	
		Before Shipment		kg	1.17	1.21
Operation Range	Heating	Outdoor Ambient Temperature		℃ (DB)	−25~35	
		Outlet Water Temperature		℃	15~60	
	DHW	Outdoor Ambient Temperature		℃ (DB)	−25~40	
		Tank Water Temperature		℃	30~55(75*4)	
	Cooling	Outdoor Ambient Temperature		℃ (DB)	5~46	
		Outlet Water Temperature		℃	5~22	
Nominal Water Flow	IWT: 30℃ / OWT: 35℃ ΔT: 5℃			m^3/h	0.77	1.38
Min. Water Flow Rate				m^3/h	0.50	0.60
DC Water Pump	Max. Lift Pressure			m	9	
	Max. Water Flow Rate			m^3/h	4.5	
	Speed			–	Inverter	
	Max. Power Input			W	87	
Water Electric Heater				kW	External (Optional)	
Safety Valve				bar	3	
Shut-off Valve				–	2 pcs Supplied	
Water Installation	Connection Type			–	Screwed Connection	
	Shutdown Valves			in.	G 1″ – G 1″ (female)	
	Inlet Pipe Diameter			in.	G 1″ (female)	
	Outlet Pipe Diameter			in.	G 1″ (female)	

NOTES:
*1: Heating/Cooling nominal performances at full load conditions according to EN 14511.
Pipe length 7.5 m; height difference ODU/IDU 0 m; heating performance are integrated (included defrost cycles).
*2: According to EN14825. Climate Zone AVERAGE. Energy efficiency scale from A +++ to D.
*3: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.
*4:When there is an DHW electric heater mounted in the DHW tank ,the setting temperature can reach 75℃.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature

Specification

Monobloc (10~16kW)

011-1W0661/0662

Model					100(3.5HP)	120(4.0HP)	140(5.0HP)	160(6.0HP)	100(3.5HP)	120(4.0HP)	140(5.0HP)	160(6.0HP)
Unit Type					AHZ-100HCDS1	AHZ-120HCDS1	AHZ-140HCDS1	AHZ-160HCDS1	AHZ-100HEDS1	AHZ-120HEDS1	AHZ-140HEDS1	AHZ-160HEDS1
Power Supply					1N, 220~240V, 50Hz				3N, 380~415V, 50Hz			
	OAT (DB/WB)	IWT / OWT	–	Unint	Parameters							
Nominal Heating Operation*1	7 / 6℃	30 / 35℃	Capacity (Min./Nom./Max.)	kW	3.3/10.0/12.5	3.8/12.0/14.5	4.32/14.0/16.0	4.86/16.0/18.0	3.3/10.0/12.5	3.8/12.0/14.5	4.32/14.0/16.0	4.86/16.0/18.0
			COP (Nom.)	–	5.10	4.95	4.80	4.60	5.10	4.95	4.80	4.60
		47 / 55℃	Capacity (Nom./Max.)	kW	9.0/11.1	11.2/13.1	13.0/15.0	15.0/17.0	9.0/11.1	11.2/13.1	13.0/15.0	15.0/17.0
			COP (Nom.)	–	3.10	3.05	3.05	2.95	3.10	3.05	3.05	2.95
	-7 / -8℃	30 / 35℃	Capacity (Nom./Max.)	kW	9.5/9.5	10.8/10.8	13.5/13.5	14.0/14.0	9.5/9.5	10.8/10.8	13.5/13.5	14.0/14.0
			COP (Nom.)	–	3.10	3.00	2.85	2.80	3.10	3.00	2.85	2.80
		47 / 55℃	Capacity (Nom./Max.)	kW	8.0/8.0	8.5/8.5	10.0/10.0	11.0/11.0	8.0/8.0	8.5/8.5	10.0/10.0	11.0/11.0
			COP (Nom.)	–	2.20	2.15	2.10	2.00	2.20	2.15	2.10	2.00
Nominal Cooling Operation*1	35 / --℃	12 / 7℃	Nominal Capacity	kW	8.5	10	11	13	8.5	10	11	13
			EER	–	3.15	3.00	2.90	2.85	3.15	3.00	2.90	2.85
		23 / 18℃	Nominal Capacity	kW	9	11	14	15.5	9	11	14	15.5
			EER	–	4.50	4.10	4.20	3.90	4.50	4.10	4.20	3.90
Seasonal Performance*2	Water Outlet 35℃	SCOP		–	4.9	4.87	4.59	4.47	4.9	4.87	4.59	4.47
		Seasonal Heating Efficiency (ηs)		%	193	192	181	176	193	192	181	176
		Energy Rating		–	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
	Water Outlet 55℃	SCOP		–	3.62	3.47	3.37	3.35	3.62	3.47	3.37	3.35
		Seasonal Heating Efficiency (ηs)		%	142	136	132	131	142	136	132	131
		Energy Rating		–	A++	A++	A++	A++	A++	A++	A++	A++
Sound Pressure*3	Normal Mode (Heating/Cooling)			dB(A)	47/47	49/49	51/51	53/53	47/47	49/49	51/51	53/53
	Low Noise Mode (Heating/Cooling)			dB(A)	44/44	46/46	47/47	49/49	44/44	46/46	47/47	49/49
	Night shift Mode ((Heating/Cooling)			dB(A)	44/44	45/45	45/45	45/45	44/44	45/45	45/45	45/45
Sound Power	Normal Mode (Heating/Cooling)			dB(A)	62/62	64/64	66/66	67/67	62/62	64/64	66/66	67/67
Fan	Condenser Fan Quantity			–	1	1	1	1	1	1	1	1
	Air Flow Rate			m^3/h	3900	3900	4200	4200	3900	3900	4200	4200
Outer Dimensions	Height × WidthDepth			mm	840 × 1376 × 390				840 × 1376 × 390			
Packing Dimensions	Height × Width × Depth			mm	995 × 1460 × 530				995 × 1460 × 530			
Net Weight				kg	108		123		110.5		125	
Gross Weight				kg	127		142		129		144	
Refrigerant System	Compressor		Type	–	Rotary							
	Refrigeration Oil		Type	–	FW68S	FW68S	FW68S	FW68S	FW68S	FW68S	FW68S	FW68S
			Charge	L	0.87	0.87	1.25	1.25	0.87	0.87	1.25	1.25
	Refrigeration Charge		Type	–	R32							
			Before Shipment	kg	1.5	1.5	2.0	2.0	1.5	1.5	2.0	2.0
Operation Range	Heating	Outdoor Ambient Temperature		℃ (DB)	-25~35							
		Outlet Water Temperature		℃	20~65							
	DHW	Outdoor Ambient Temperature		℃ (DB)	-25~43							
		Tank water temperature		℃	30~60(75*4)							
	Cooling	Outdoor Ambient Temperature		℃ (DB)	5~46							
		Outlet Water Temperature		℃	5~22							
Water Flow Rate	IWT: 30℃ / OWT: 35℃ ΔT: 5℃			m^3/h	1.72	2.06	2.41	2.75	1.72	2.06	2.41	2.75
DC Water Pump	Max. Lift Pressure			m	12.5							
	Max. Water Flow Rate			m^3/h	4							
	Type			–	Inverter							
	Max. Power Input			W	180							
Safety valve				–	Yes (3 bar)							
Shut-off valve				in.	1", DN25							
Water Installation	Connection type			–	Screwed connection							
	Shutdown valves			mm (in.)	G 1" (female) – G 1" (female)							
	Inlet pipe diameter			mm (in.)	G 1" (male)							
	Outlet pipe diameter			mm (in.)	G 1" (male)							

NOTES:
*1: Heating/Cooling nominal performances at full load conditions according to EN 14511.
Pipe length 7.5 m; height difference ODU/IDU 0 m; heating performance are integrated (included defrost cycles).
*2: According to EN14825. Climate Zone AVERAGE. Energy efficiency scale from A +++ to D.
*3: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.
*4:When there is an DHW electric heater mounted in the DHW tank ,the setting temperature can reach 75℃.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature

Accessories

Auxiliary electrical heater

Model			DRE-300WG	DRE-600WG	DRE-S600WG
Power supply	Power	–	220-240V~50Hz	220-240V~50Hz	380-415V 3~50Hz
	Max curruent	A	14.3	28.7	9.52
	Cable Size	mm^2	3×2.5	3×6.0	5×2.5
	CB	A	16	32	16
	ELB	No. of poles/A/mA	2/16/30	2/32/30	3/16/30
Dimensions H×W×D		mm	494×317×104.5	494×317×104.5	494×317×104.5
Weight		Kg	6.9	7.7	8.1
Regulated electrical heater capacity	step 1	kW	1	2	2
	step 2	kW	2	4	4
	step 3	kW	3	6	6
Connections	Water Inlet	–	G1" (male)	G1" (male)	G1" (male)
	Water Outlet	–	G1" (male)	G1" (male)	G1" (male)
Vessel Material		–	304 (Stainless steel)	304 (Stainless steel)	304 (Stainless steel)
Maximum Water Pressure		bar	10	10	10
Air purge valve		–	YES	YES	YES
Auto-reset Safety Thermostat		–	75℃±4℃	75℃±4℃	75℃±4℃
Manual Reset Safety Thermostat		–	85℃±5℃	85℃±5℃	85℃±5℃

Others

Accessories	Model	Function	Compatibility
Water temperature sensor	HTS-E1000A1	Water temperature sensor for pipeline, tank and hydraulic components.	Hi-Therma Series
3-way valve	HESE-3W25A	Valve to divert different water flow for different operation	Hi-Therma Series
Hi-Mit II adapter	HCCS-H64H2C1M#01	Hi-Mit II smart APP solution.	Hi-Therma Series
Indoor ambient temperature sensor	HCT-S01E	Wall mounted room temperature sensor, with communication to heat pump system.	Hi-Therma Series
Wired remote controller	HSXE-VC04	Room thermostat for room temperature control, with communication to heat pump system.	Hi-Therma Series
Second outdoor ambient temperature sensor	HC-T-01M	Detect outdoor ambient temperature with the second sensor	Hi-Therma Series