reddot winner 2022

Hisense

AIR TO WATER HEAT PUMP

Hi-Therma Split Series

ISO14001   ISO9001   ISO61001

HCAC-LL-ATWSplit202307

The Hi−Therma Split Series offers a stylish heating and cooling solution that was awarded the 2022 Reddot Award for its minimalist yet sophisticated design. It has clean lines and a classic white and gray color scheme that complements any home decor style, achieving the perfect fusion of form and function.

Hisense

Hi-Therma

NEW

Reddot award design	65℃ Max 65℃ outlet water temperature	100% −7℃ 100% heating capacity A−7℃/W35℃	One−click configuration	Compatible with colorful touch controller	12m Max lift of up to 12m of water pump

High Efficiency and Excellent Performance

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

User Convenience

Two separate temp. cycles	Max.7 Up to 7 rooms with independent temp. control	Low noise operation	Night shift mode operation	Centralized control and individual control	Screed drying	Swimming pool heating	888 Visual display of energy consumption

High Intelligence

Smart App control	Intuitive interface of controllers	Smart hint

Easy Installation and Maintenance

Hi−Checker	Water pressure and water flow monitoring	Long Long piping design

Reddot Award Casing Design

The new 2022 Reddot award−winning outdoor unit is recognized for its exceptional design, featuring a classic gray color and a screw−less 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.
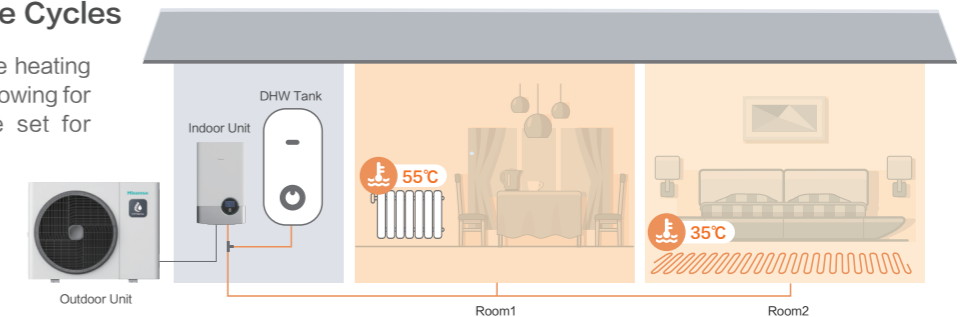
1100   390   840

Hisense

Hi-Therma

Unit: mm
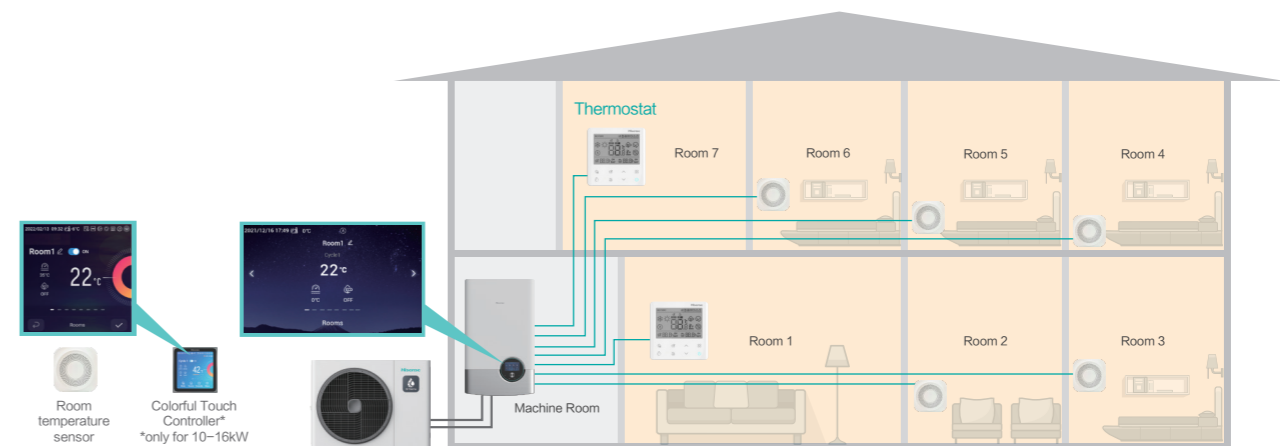
User Convenience

Two Separate Temperature Cycles

The mixing valve kit enables separate heating cycles and two temperature zones, allowing for different water temperatures to be set for underfloor heating and the radiator.

DHW Tank

Indoor Unit

55℃   35℃

Outdoor Unit

Room1   Room2

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.

Thermostat

Room 7   Room 6   Room 5   Room 4

Room1   22℃   22℃

Room 1   Room 2   Room 3

Machine Room

Room temperature sensor   Colorful Touch Controller* *only for 10−16kW

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

High Efficiency and Excellent Performance

High Efficiency A+++

Hi-Therma offers an efficient solution for home heating and hot water supply with top-class A+++ energy classification under low-temperature water condition and A++ under mid-temperature water condition. This ensures savings on energy bills, reduces electricity consumption, and minimizes the impact on the environment.

Energy Label

Reliable and Consistent Warmth

Experience consistent and stable warmth with Hi-Therma split units, compensating for aging pipeline and radiator heat loss with a maximum outlet water temperature of 65℃. Even at low outdoor temperatures, the units can reach to 100% heating capacity*1, guaranteeing an exceptional heating performance.*2
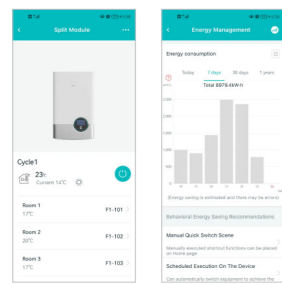
Note: *1. Peak heating capacity A-7℃/W35℃   *2. Only for 10-16 kW

-7℃   Indoor Unit

Max. 65℃
Leaving water from indoor unit

100% Capacity

Outdoor Unit

High Intelligence and Smart Control

Smart App Control

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

Hi-Mit II Adaptor

Colorful Touch Controller*

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

*Note: Only for 10-16kW units

HSXM-FE01

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

Centralized control of different cycles

Independent control of rooms

Cycle 1

Cycle 1   42℃

Room1   22℃

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 for 10-16kW units and only supports pre-stored maximum of 6 scenarios.
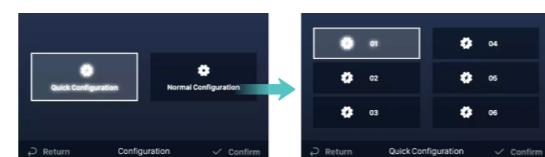
Stylish Controller in Indoor Unit

Excellent human-computer interaction experience

The indoor unit of Hi-Therma features a built-in large, colorful screen wired controller that is easy to operate using the knob and buttons. All water cycles and rooms can be configured separately, and the main interface displays the real-time settings of each water cycle and the current water temperature. The LED light strip around the wired controller intuitively indicates the current operating mode.

Total(Year)

Input(KWh)   Capacity(KWh)

120   12.32   64   102   89
2016   2017   2018   2019   2020

Return   Operation Data   Confirm

Energy consumption display

Energy data can be viewed easily, including annual energy data, monthly energy data, daily energy data, which will help users to do effective energy management.

Light strip

The intuitive light strip shows you in real time the status of your system.

Blue: cooling mode or defrost mode.
Yellow: heating mode.
Orange: domestic hot water mode.
Red: malfunction

26℃   30℃   30℃

Quick access

Quick access to frequent settings, including six items – lock, DHW boost, holiday, quiet mode, auto heat, night-shift mode. All these functions can be activated according to users' need.

Fluency of knob operation

All the operations can be accessed through the knob smoothly.

High-resolution colorful screen

The HD colorful screen delivers stunning and clear visual reference, enabling excellent user experience.

Proper interface zones

There are four functional zones, Cycle 1, Cycle 2, DHW, SWP. Each zone has intuitive parameter display, easy to check and set.

High-Efficiency Water Pump For Convenient and Cost-effective

Hi-Therma Split unit features a built-in water pump with a maximum lift of up to 12 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.

Max. 12m

Convenient Maintenance for the Indoor Unit

The position of the components in indoor unit has been fully optimized, and the electrical box can be rotated 88°, which facilitates the maintenance of the parts behind the electrical box, and greatly simplifies the maintenance. Besides, there is a hook on the outer sheet metal of the electrical box, and the controller can be conveniently hung during on-site maintenance.

88°
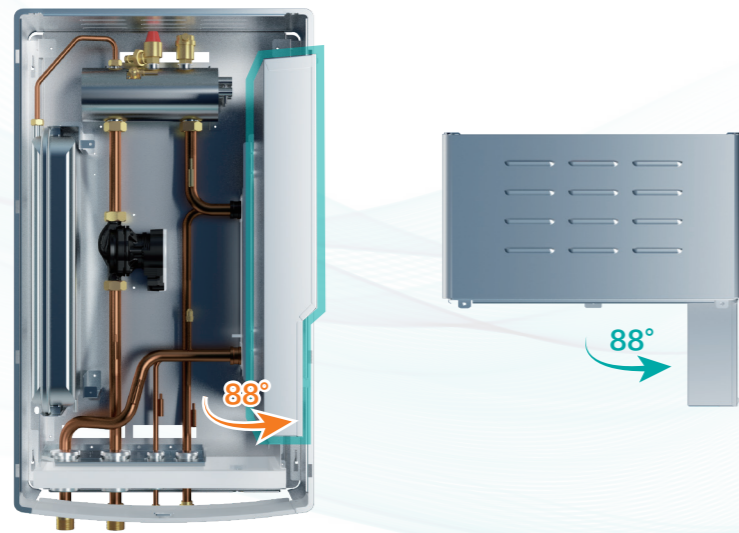
Hi-Checker

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

OTA Update

Different water cycles in multiple rooms control
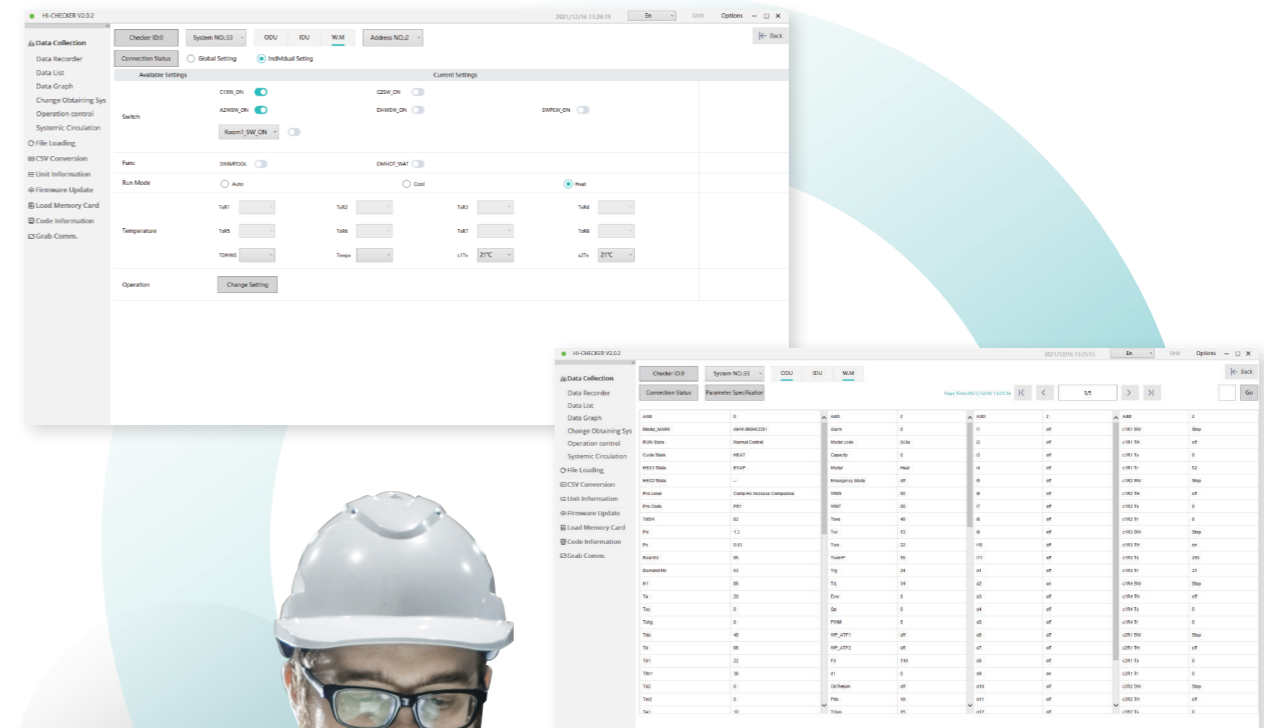
Up to 130 parameters of the water system can be displayed intuitively.

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.

138mm

68mm

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.

TYPE 1

TYPE 2

TYPE 3

Hot Spot

TYPE 4

SD

Hi−Checker

PC or Tablet
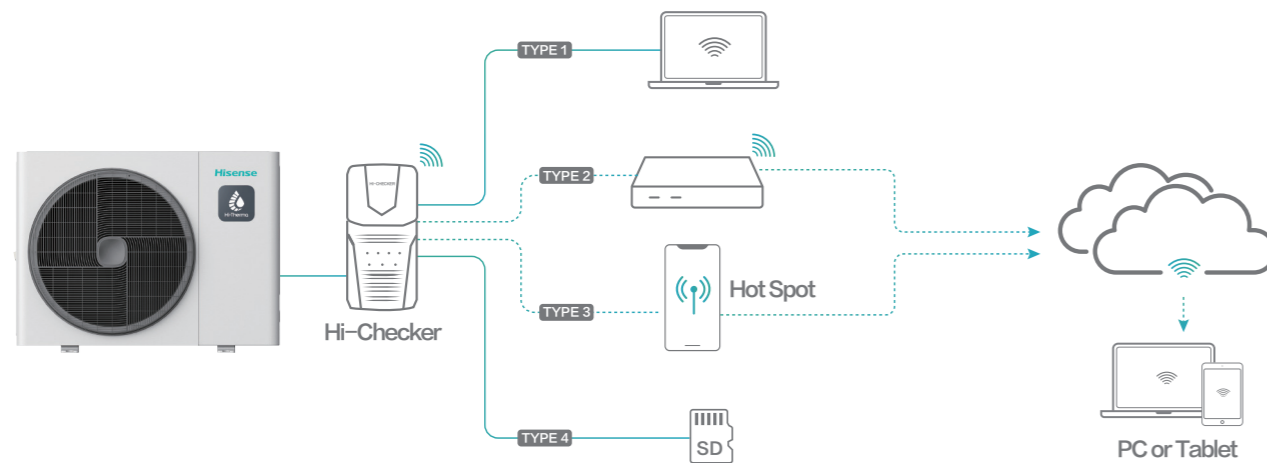
Specifications

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

Hi−Therma (4~8kW)

Series			Split		
HP			2.0	2.5	3.0
Model			AHW−044HCDS1	AHW−060HCDS1	AHW−080HCDS1
	Power Supply		AC 1Φ，220−240V/50Hz		
OAT (DB/WB)	IWT / OWT	Unit	Parameters		
Nominal Heating Operation*1	7/6℃	30 / 35℃ Capacity	kW	4.40	6.00	8.00
		COP (Nom./Max.)	−	5.10/5.00	5.00/4.64	4.90/4.31
		47 / 55℃ Capacity	kW	6.00	7.50	9.00
		COP	−	2.90	2.96	2.75
	2/1℃	30 / 35℃ Capacity	kW	6.10	7.20	8.50
		COP	−	3.93	3.34	3.38
		47 / 55℃ Capacity	kW	5.20	6.60	7.20
		COP	−	2.27	2.32	2.15
	−7 / −8℃	30 / 35℃ Capacity	kW	5.00	5.90	7.30
		COP	−	2.51	2.38	2.56
		47 / 55℃ Capacity	kW	4.20	5.10	6.40
		COP	−	1.83	1.81	1.82
Nominal Cooling Operation*1	35℃	12 / 7℃ Nominal Capacity	kW	4.40	5.00	6.00
		EER	−	3.90	3.70	3.60
		23 / 18℃ Nominal Capacity	kW	5.60	6.00	7.00
		EER	−	5.60	5.60	5.10
Seasonal Performance*2	Water Outlet 35℃	SCOP	−	5.00	4.93	4.92
		Seasonal Heating Efficiency (ηs)	%	197	194	194
		Energy Rating	−	A+++	A+++	A+++
	Water Outlet 55℃	SCOP	−	3.23	3.33	3.42
		Seasonal Heating Efficiency (ηs)	%	126	130	134
		Energy Rating	−	A++	A++	A++
	Water Outlet 18℃	SEER	−	8.87	8.73	8.54
		Seasonal Cooling Efficiency (ηs)	%	352	346	339
	Water Outlet 7℃	SEER	−	5.75	5.85	5.73
		Seasonal Cooling Efficiency (ηs)	%	227	231	226
Sound Pressure*3	Normal Mode (Heating/Cooling)	dB(A)	47/47	48/47	50/47
	Low Noise Mode (Heating/Cooling)	dB(A)	39/39	42/42	43/43
	Night Shift Mode (Heating/Cooling)	dB(A)	35/35	38/38	39/39
Sound Power	Normal Mode (Heating/Cooling)	dB(A)	61/61	62/61	64/61
Fan	Condenser Fan Quantity	—	1	1	1
	Air Flow Rate	m³/h	2700	2700	2700
	Recommended Fuse	A	16	16	20
Outer Dimensions	Height × Width × Depth	mm	750 × 900 × 340		
Packing Dimensions	Height × Width × Depth	mm	807 × 1022 × 445		
	Weight(Net/Gross)	kg	49.5/53.5	49.5/53.5	50.5/54.5
Compressor	Type	—	Rotary		
	Type	—	R32		
Refrigerant System	Refrigerant Charge Before Shipment	kg	1.23	1.23	1.26
	Piping Gas Pipe	mm(in.)	Φ12.7(1/2)	Φ12.7(1/2)	Φ12.7(1/2)
	Liquid Pipe	mm(in.)	Φ6.35(1/4)	Φ6.35(1/4)	Φ6.35(1/4)
	Min. Piping Length	m	5		
	Max. Chargeless Piping Length	m	15		
	Max. Piping Length	m	40	40	45
	Height Difference between ODU and IDU ODU is Higher	m	30	30	30
	IDU is Higher	m	20	20	20
Operation Range	Heating Outdoor Ambient Temperature	℃ (DB)	−25~35		
	Outlet Water Temperature	℃	15~60		
	DHW Outdoor Ambient Temperature	℃ (DB)	−25~40		
	Tank Water Temperature	℃	15~55(75*4)		
	Cooling Outdoor Ambient Temperature	℃ (DB)	5~46		
	Outlet Water Temperature	℃	5~22		
Indoor Unit		—	AHM−044HCDSAA	AHM−060HCDSAA	AHM−080HCDSAA
Power Supply		—	AC 1Φ, 220−240V/50Hz		
Water Flow Rate	IWT: 30℃ / OWT: 35℃ ΔT: 5℃	m³/h	1.21	1.53	1.90
	IWT: 47℃ / OWT: 55℃ ΔT: 8℃	m³/h	0.65	0.81	0.97
Min. Water Flow Rate		m³/h	0.50	0.60	0.60
DC Water Pump	Net Lift Pressure	m	6.2	4.7	3.2
	Max. Lift Pressure	m	7.6		
	Max. Water Flow Rate	m³/h	3.5		
	Energy Efficiency Class	−	A		
	Speed	−	Inverter		
	Max. Power Input	W	50		
Water Electric Heater (3 Steps)		kW	1/2/3		
Shut−off Valve with Filter	Material	−	Brass		
	Diameter	in.	1		
	Mesh Filter	−	30		
	Type Filter	−	Self−cleaning (with back flush)		
Safety Valve		bar	3		
Shut−off Valve		−	2 pcs Supplied		
Sound Pressure		dB(A)	28	28	28
Sound Power		dB(A)	42	42	42
Recommended Fuse		A	20(40*5)		
Outer Dimensions(with connections)	Height × Width × Depth	mm	890 × 520 × 320		
Packing Dimensions	Height × Width × Depth*6	mm	419 × 1160 × 650		
	Weight(Net/Gross)	kg	43.5/48.5	43.5/48.5	44.5/49.5
Refrigerating Installation	Connection Type	−	Flare Nut Connection		
	Gas Pipe	mm(in.)	Φ15.88(5/8)	Φ15.88(5/8)	Φ15.88(5/8)
	Liquid Pipe	mm(in.)	Φ9.53(3/8)	Φ9.53(3/8)	Φ9.53(3/8)
Water Installation	Connection type	−	Screwed Connection		
	Shutdown valves	in.	G1− G1(male)		
	Inlet pipe diameter	in.	G1(female)		
	Outlet pipe diameter	in.	G1(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.
*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℃.
*5: The value is the data when electric heater is working.
*6: Measurement data is based on horizontal placement according to transportation.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature.

Hi-Therma (10~16kW)

Series				Unit	Split			
			HP		3.5	4.0	5.0	6.0
Outdoor Unit	Power Supply		AC 1Φ, 220~240V/50Hz	—	AHW-100HCDS1	AHW-120HCDS1	AHW-140HCDS1	AHW-160HCDS1
			AC 3Φ, 380-415V/50Hz	—	AHW-100HEDS1	AHW-120HEDS1	AHW-140HEDS1	AHW-160HEDS1
	OAT (DB/WB)	IWT / OWT	–	Unit	Parameters			
Nominal Heating Operation[*1]	7/6℃	30 / 35℃	Capacity(Nom./Max.)	kW	10.0/12.5	12.0/14.5	14.0/16.0	16.0/18.0
			COP (Nom.)	–	5.10	4.95	4.80	4.60
		47 / 55℃	Capacity (Nom./Max.)	kW	9.0/11.0	11.2/13.0	13.0/15.0	15.0/17.0
			COP (Nom.)	–	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
			COP (Nom.)	–	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
			COP (Nom.)	–	2.15	2.10	2.05	2.00
Nominal Cooling Operation[*1]	35℃	12 / 7℃	Nominal Capacity	kW	8.5	10.0	11.0	13.0
			EER	–	3.00	2.85	2.85	2.70
		23 / 18℃	Nominal Capacity	kW	9.0	11.0	14.0	15.5
			EER	–	4.50	4.10	4.20	3.90
Seasonal Performance[*2]	Water Outlet 35℃		SCOP	–	4.83	4.76	4.61	4.49
			Seasonal Heating Efficiency (ηs)	%	190.0	187.0	181.0	177.0
			Energy Rating	–	A+++	A+++	A+++	A+++
	Water Outlet 55℃		SCOP	–	3.58	3.46	3.29	3.28
			Seasonal Heating Efficiency (ηs)	%	140.0	135.0	129.0	128.0
			Energy Rating	–	A++	A++	A++	A++
Sound Pressure[*3]		Normal Mode		dB(A)	48	49	51	53
		Low Noise Mode (Heating)		dB(A)	43	46	46	48
		Night Shift Mode (Heating)		dB(A)	42	42	44	44
Sound Power		Normal Mode		dB(A)	62	64	66	67
Fan		Condenser Fan Quantity		–	1	1	1	1
		Air Flow Rate		m³/h	3900	3900	4200	4200
Outer Dimensions		Height × Width × Depth		mm	840 × 1100 × 390			
Packing Dimensions		Height × Width × Depth		mm	1000 × 1185 × 530			
		Weight(Net/Gross)		kg	77.0/92.0	77.0/92.0	90.5/105.5	90.5/105.5
Refrigerant System	Compressor	Type		–	Rotary			
		Quantity		–	1	1	1	1
	Refrigeration Charge	Type		–	R32			
		Before Shipment		kg	1.8	1.8	2.7	2.7
	Piping	Gas Pipe		mm(in.)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)
		Liquid Pipe		mm(in.)	9.53(3/8)	9.53(3/8)	9.53(3/8)	9.53(3/8)
		Minimum Piping Length		m	4			
		Maximum Chargeless Piping Length		m	15			
		Maximum Piping Length		m	50			
	Height Difference Between ODU and IDU	Higher ODU		m	30			
		Lower ODU		m	20			
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			
Indoor Unit	Power Supply	AC 1Φ, 220~240V/50Hz		—	AHM-100HCDSAA	AHM-120HCDSAA	AHM-140HCDSAA	AHM-160HCDSAA
		AC 3Φ, 380-415V/50Hz		—	AHM-100HEDSAA	AHM-120HEDSAA	AHM-140HEDSAA	AHM-160HEDSAA
Nominal Water Flow		IWT: 30℃/OWT: 35℃ ΔT: 5℃		m³/h	1.72	2.06	2.41	2.75
		Min. Water Flow Rate		m³/h	0.80	0.90	1.10	1.20
DC Water Pump		Net Lift Pressure		m	12.00			
		Max. Water Flow Rate		m³/h	5.60			
		Type		–	Inverter			
		Max. Power Input		W	180			
		Water Electric Heater (3 Steps)		kW	2/4/6			
Shut-off Valve with Filter		Material		–	Brass			
		Diameter		in.	1			
		Mesh Filter		–	50			
		Type Filter		–	Self-cleaning (with back flush)			
		Safety Valve		bar	3			
		Shut-off Valve		–	2 pcs Supplied			
		Sound Pressure		dB(A)	29	29	29	29
		Sound Power		dB(A)	44	44	44	44
Outer Dimensions		Height × Width × Depth		mm	890 × 520 × 320			
Packing Dimensions		Height × Width × Depth[*5]		mm	420 × 1160 × 650			
		Weight(Net/Gross)		kg	47.0/53.5		49.5/56.5	
Refrigerating Installation		Connection Type		–	Flare nut connection			
		Liquid Pipe Diameter		mm (in.)	9.53 (3/8)			
		Gas Pipe Diameter		mm (in.)	15.88 (5/8)			
Space Heating Pipes Connection		Connection Type		–	Screwed connection			
		Shutdown Valves		in.	G1(female) – G1(female)			
		Inlet Pipe Diameter		in.	G1(male)			
		Outlet Pipe Diameter		in.	G1(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.
*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℃.
*5: Measurement data is based on horizontal placement according to transportation.
OAT: Outdoor ambient temperature; IWT: Inlet water temperature; OWT: Outlet water temperature.

Accessories

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
Wall mounted room temperature sensor	HCT-S01E	Wall mounted room temperature sensor, with communication to heat pump system.	Hi-Therma series
Room thermostat	HSXE-VC04	Room thermostat for room temperature control, with communication to heat pump system.	Hi-Therma series
Outdoor ambient temperature sensor	HC-T-01M	Detect outdoor ambient temperature with the second sensor.	Hi-Therma series
Domestic hot water tank	HDHWT-200L30HE HDHWT-300L30HE	Store and supply heated water for various household uses	Hi-Therma Split & Monobloc
Electronic anode	HOPT-EAT01	Protect the inner tank of the water heater, enhance its corrosion resistance, and prolong its service life.	DHW tank
Colorful touch controller	HSXM-FE01	Touch controller for room temperature control and mode adjustment with communication to heat pump system.	Hi-Therma Integra & Split (not for split 4~8kW)