

GREE
AIR CONDITIONER

**Inverter Technology,
upto 18SEER**



INVERTER DUCTED UNITARY SPLIT PRODUCT



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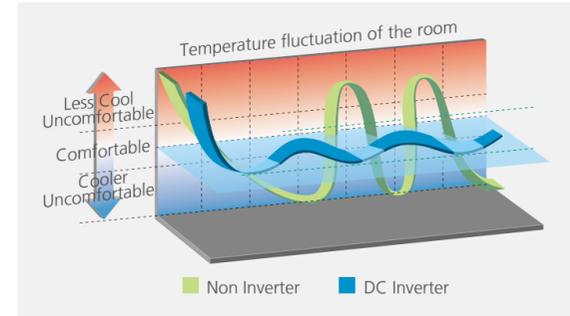
HIGH EFFICIENCY

High Efficiency Inverter Compressor

Large-power Startup and Low-power Operation

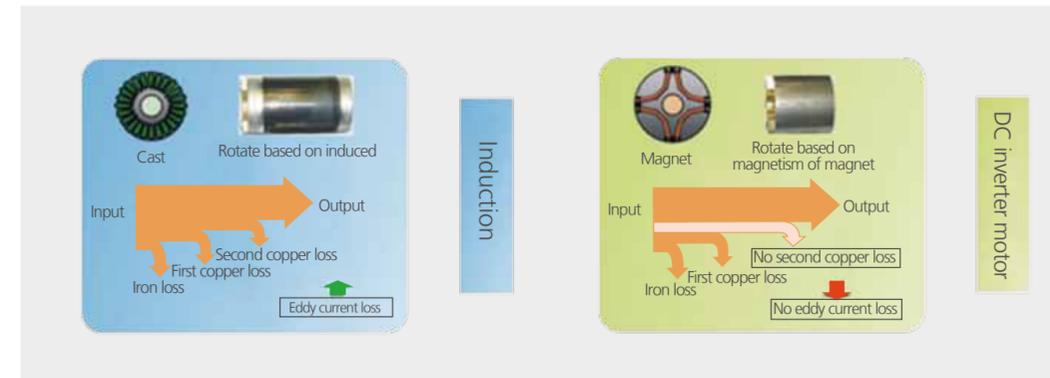
The DC inverter compressor will run cooling at the largest power input and largest airflow each time it is started until the set temperature is approached. Then, it runs at a low speed and low power input, which thus can not only keep the temperature from fluctuating but also avoid frequently starting and stopping the compressor so as to prolong its service life.

Taking a room of 15m² as an example, the air conditioning time of DC inverter unit is 6-10 minutes shorter than that of the non-inverter one. After the set temperature reached, DC inverter compressor will run with only 10% power input of the non-inverter one, so as to control the temperature loss and keep temperature steady. Therefore, the electricity consumption is cut down and the energy efficiency is improved greatly.



High Efficiency PMSM

As for the DC inverter compressor with the permanent magnetic synchronous motor (PMSM), there is no current through the motor rotor, no eddy current loss and little heat produced, which means less ineffective power loss so that the motor's efficiency can be improved and the power input can be reduced greatly



High Efficiency Fan Motor

High-efficiency motors from the well-known manufacturer are used and able to save electricity power significantly.

Stepless Regulation

According to customer's needs, system output and operating frequency can realize stepless regulation within 10%~120% and 22Hz~80Hz respectively. Thus, both the computability and energy efficiency is improved.

180° Vector Control technology

With DC Inverter 180° Vector Control technology, compressor can run more smoothly. According to spectral analysis, harmonic wave of DC inverter compressor is smaller than that of common inverter compressor. With lesser heat output and higher energy efficiency, motor can help saving 20% energy per year.

High Efficiency Heat Exchanger

Condenser

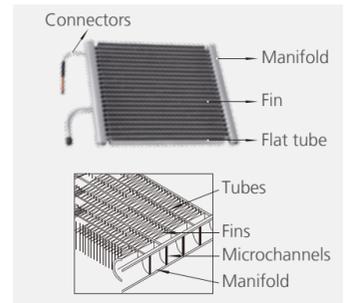
Micro Channel Heat Exchanger*

Micro Channel Heat Exchanger (MCHX) transfers heat through multiple flat fluid-filled tubes containing small channels, which can enhance heat transfer coefficient so that heat exchange efficiency is increased by 30% compared to the normal finned tube heat exchanger.

Full Aluminum Design, less quantity of refrigerant charging and more environmental friendly.

Lighter weight thanks to Aluminum, 40% of weight can be reduced compared to normal finned tube heat exchanger, and also reduce the unit dimension to improve the container loading quantities.

Note * for cooling only condensing unit.



Evaporator

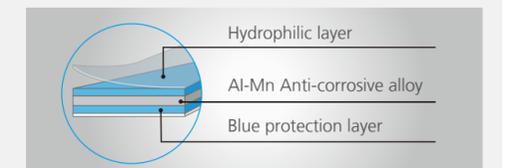
Inner Groove Copper Pipe

Special thickened inner groove copper tube enhances heat exchanging performance.



Hydrophilic Blue Fin

Highly anti-corrosion blue hydrophilic coated aluminum fin has longer lifespan than common fin.



Heat exchange circuit is optimized in design to best utilize the heat exchanging capacity of evaporator.

DC Inverter condensing unit, newly designed high efficiency household air conditioner, SEER can reach up to 18, with more reasonable and competitive cost, is targeted at the North America market and mainly applied to villas, office buildings, supermarkets, hotels, offices, restaurants etc.

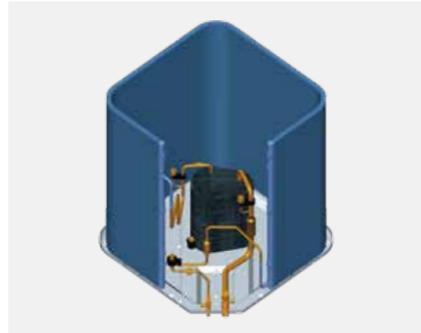


BETTER COMFORT

Quiet Design

Low Running Noise with Good Insulation

The inverter compressor is insulated with the noise absorption sponge, which is capable of reducing the running noise remarkably, e.g. by 3-4dB at the highest frequency.



Lower Running Noise at Lower Running Frequency

The inverter compressor and fuzzy control technology, adopting by inverter air conditioner, are able to control the cooling speed according to the indoor temperature change. It features the low noise and it is proved by the test that the noise of the inverter air conditioner is lower and service life is 5-8 years longer, compared with the non-inverter air conditioner.

Low Noise Fan Motor

System adopts low noise motor and optimized 3-dimensional stream blades so that there is lower noise while efficiency is ensured.

Comfortable Airflow

High ESP Design

The high static pressure design of indoor unit can ensure enough air volume for every room that is connected to the system. Comfort level of every room is also guaranteed.

Optimization Airflow

The duct can connect with multiple diffusers to ensure even distribution of airflow and optimize the air quality.



GOOD VERSATILITY

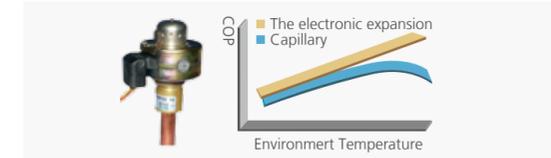
Easy Installation

The indoor unit can be installed either horizontally or vertically so as to meet various installation requirements.



Flexible Electronic Expansion Valve

The electronic expansion valve guarantees that the system makes adjustment automatically according to the changes of the circumstance and water temperature. It is more energy saving and stable than capillary.



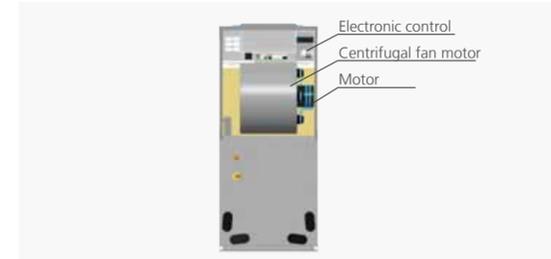
Compact Design

The newly designed 4-sides detachable case is capable of not only accommodating the large-sized electric box but also keeping a compact structure. The compact design of the indoor and outdoor unit helps to reduce the installation space and transportation cost.



Easy Maintenance

The fan system is dismantlable to simplify the maintenance.



HIGH RELIABILITY

Strong Anti-corrosion

Moisture Resistance and Damp-proof

- Control board is surfaced with high quality damp-proof oil. Together with the damp-proof and water-proof design of the electric box, system can still operate reliably even under damp or wet condition.
- Humidity-status test (working condition: 30/29) and rainfall test (full-range and severe rainfall on the entire unit) have been taken to the system. Moisture resistance grade is IP24.

Anti-corrosive

The outer case of outdoor unit is made of painted steel and galvanized so that system can prevent corrosion and rust effectively.

Long-life Operation

Apply spray plastic and fenestration designs to effectively prevent heat exchanger from damage incurred by hail which also pass 1000-hour tests of rot-proof and salt mist.



Wide Operation Voltage Range

The unit can safely operate within 187~254V.



Comprehensive Protection

High/low pressure protection

When suction pressure is too low or discharge pressure is too high, compressor will stop and unit display malfunction code.

Overload protection

Compressor has its own overheat protection. Once the temperature of compressor is higher than allowable level, compressor will stop and only when temperature recovery, compressor restart.

Over current protection

Once the current of compressor is higher than normal level, compressor will stop and unit display malfunction code.

Discharge high temperature protection

Once the discharge temperature of compressor is higher than allowable value, compressor will stop and unit display malfunction code.

Reverse (open) phase protection

Once the phase sequence of power supply is incongruent or the phase is absent, unit can't work.

Temperature sensor alarm

Once temperature sensor is off or short-circuited, system will indicate the error code and give alarm.

INTELLIGENT CONTROL

Precise Temperature Control

Both wired controller and outdoor unit are furnished with the temperature sensor, which can detect the outdoor and indoor temperature precisely. And then the compressor can adjust the power input based on the change of the indoor and outdoor temperature so as to supply much exacter conditioned air and let the occupants feel more comfortable.

Indoor Unit Separate Control

Indoor units are separately controlled through the wired controller. Even though the unit is turned off, FAN mode can still be realized through the Fan button on the wired controller.



Standard Packed with Condensing unit

Memory Function (optional)

Two statuses of "Memory On" and "Memory Off" can be configured for the controller. This function can save the repeated setting owing to the power failure.

- When the controller is set to "Memory On", the controller can memorize the running status before the power failure and resume the previous running status after the power restoration.
- When the controller is set to "Memory Off", the running air conditioner will go to the standby status in the event of power failure.

Other Functions

- ON/OFF timer function
- Filter-wash awake
- Switch between °C and °F
- Thermostat button lock

Outdoor Unit

Model	Cooling only		HW18024PNa-D	HW18036PNa-D	HW18042PNa-D	HW18048PNa-D
Capacity	Cooling	BTU/h	24000/20000	35000/31000	41000/35000	48000/46000
Power supply		V/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Refrigerent charge volume		kg	1.8	2.55	2.9	3.5
Power input	Cooling	kW	1.96	2.98	3.57	3.85
Rated current	Cooling	A	13	18	21	25
Air flow volume		CFM	1764	2650	3000	3275
		m ³ /h	3000	4500	5400	5567.5
Sound pressure level		dB(A)	57	62	63	63
Dimension (WxDxH)	Outline	mm	610x610x620	710x710x735	710x710x850	750x750x850
	Package	mm	651x651x655	773x773x755	773x773x885	773x773x1005
Net weight/Gross weight		kg	52/56	71/75	77/83	96/110
Connection pipe diameter	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)
	Gas	inch(mm)	φ5/8(15.9)	φ3/4(19.05)	φ7/8(22.2)	φ7/8(22.2)
Loading quantity	40'GP/40'HQ	set	162/216	135/135	90/135	90/90

Air Handler

Model			HNF18024-D	HNF18036-D	HNF18042-D	HNF18048-D
capacity		BTU/h	24000	35000	41000	48000
Power supply		Ph/V/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Motor type			AC	DC	DC	DC
Power input		kW	0.13	0.32	0.238	0.238
Rated current		A	0.52	3.6	4.6	4.6
Air flow volume		CFM	706	1150	1300	1420
		m ³ /h	1200	1954	2209	2400
External statics pressure		Pa	25	37	37	50
Sound pressure level		dB(A)	44	52	52	52
Dimension (WxDxH)	Outline	mm	532x540x1105	532x540x1224	621x540x1224	621x540x1224
	Package	mm	572x590x1160	572x607x1280	656x622x1280	656x622x1280
Net weight/Gross weight		kg	57/61	63/69	74/81	74/81
Connection pipe diameter	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)
	Gas	inch(mm)	φ5/8(15.9)	φ3/4(19.05)	φ7/8(22.2)	φ7/8(22.2)
Loading quantity	40'GP/40'HQ	set	154/160	112/152	81/108	81/108

Electric Heat Kits Available

No.	Kit	Description	Ref. Air Handler use
1	HNRd5/A-D	5kw Heat Strip	18,24,30,36,42
2	HNRd8/A-D	8kw Heat Strip	18,24,30,36,42
3	HNRd10/A-D	10kw Heat Strip	18,24,30,36,42
4	HNRd5-D	Circuit Breaker, 5kw Heat Strip	18,24,30,36,42,48
5	HNRd8-D	Circuit Breaker, 8kw Heat Strip	18,24,30,36,42,48
6	HNRd10-D	Circuit Breaker, 10kw Heat Strip	18,24,30,36,42,48
7	HNRd15-D	Circuit Breaker, 15kw Heat Strip	30,36,42,48
8	HNRd20-D	Circuit Breaker, 20kw Heat Strip	36,42,48