NEWEX
Experience New

JOEBATH COOL
Your Trusted HVAC Loyalists Your Comfort is Our Mission

P.O.BOX TT 104 TEMA NEW TOWN
Tel: +233 (0) 207 024 811 / +233 (0) 591 530 102
Email: joeebathcool10@gmail.com

2024 PRODUCTS

EXPERIENCE NEW WITH NEWEX

ABOUT NEWEX

Established in 2012,NEWEX was created upon the concept of providing a new experience for globalbusiness in China. With attitude to be professional, NEWEX is now growing into a dedicated HVAC/Rproducts and parts solution provider. We also enrich our line up to the new-star products and believethe new eco technology could bring us a better and greener world. Guarantee of quality, certainty ofservice, NEWEX always seeks for the best benifits for your business. Working with NEWEX let uscreate a better future.

OUR MISSION

Your best solution provider of HVAC/R products and parts.
Your best professional global business partner in China.
Your best new experience of quality and services from expert.

JOEBATH COOL
Your Trusted HVAC Loyalists Your Comfort is Our Mission

P.O.BOX TT 104 TEMA NEW TOWN
Tel: +233 (0) 207 024 811 / +233 (0) 591 530 102
Email: joeebathcool10@gmail.com

NEWEX TEAMS

HVAC/R products team

We provide full line of HVAC/R equipments and new-star products

HVAC/R parts team

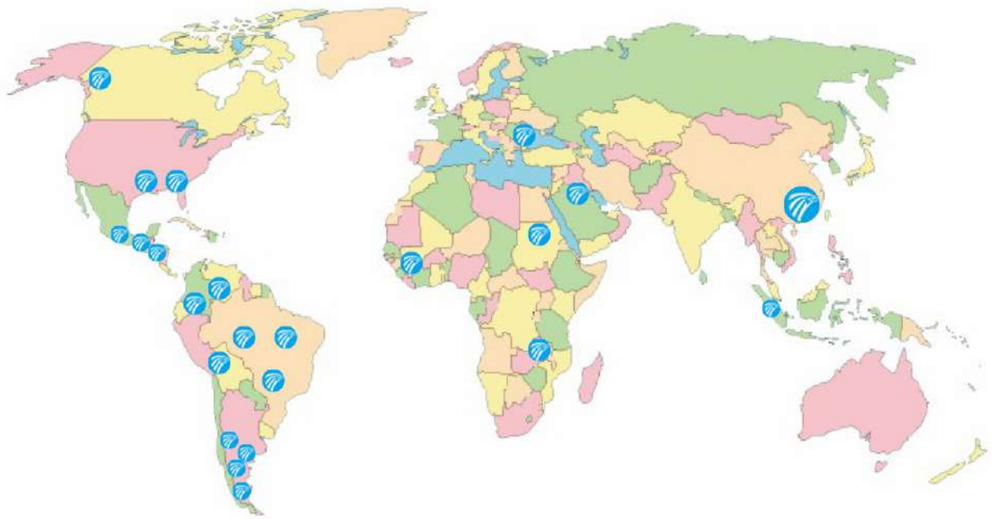
We provide high quality HVAC/R parts such as compressors,motors,refrigerant, copper pipes, AC brackets,capacitors, service tools,etc.

R&D team

We provide customized products according to clients' requirements. And we also keep designing and improving new products.

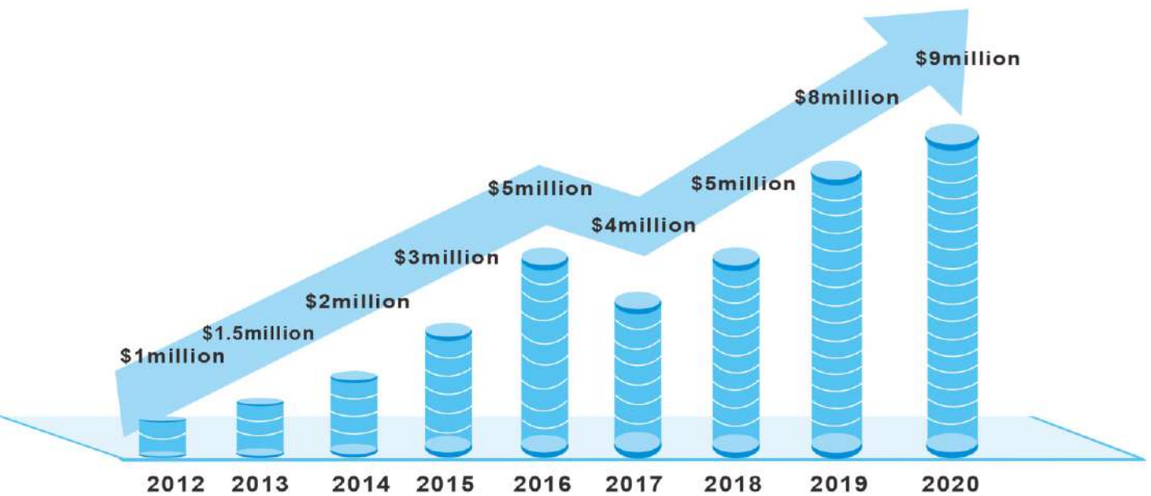
NEWEX Global Network

NEWEX, an international brand, was established in 2008 with the business concept of providing professional solutions for massive global demands. Focusing mainly for the global markets, NEWEX remains professionally devoted. We are the solution provider and your benefit defender. Group Company formed based on the free port of Hong Kong, NEWEX also strategically sets up manufacturing base and offices in the Pearl River Delta regions, within the Kingdom for the home appliances. NEWEX strives to create comfort for our global customers, bring values for our employees and make contribution to the whole world.



NEWEX Sales Revenue

Haier, with it global revenue reaching 25.8 billion USD, is the number one brand of Major Appliance in the world with 8.6% retail volume share in 2012.



Enerprise History

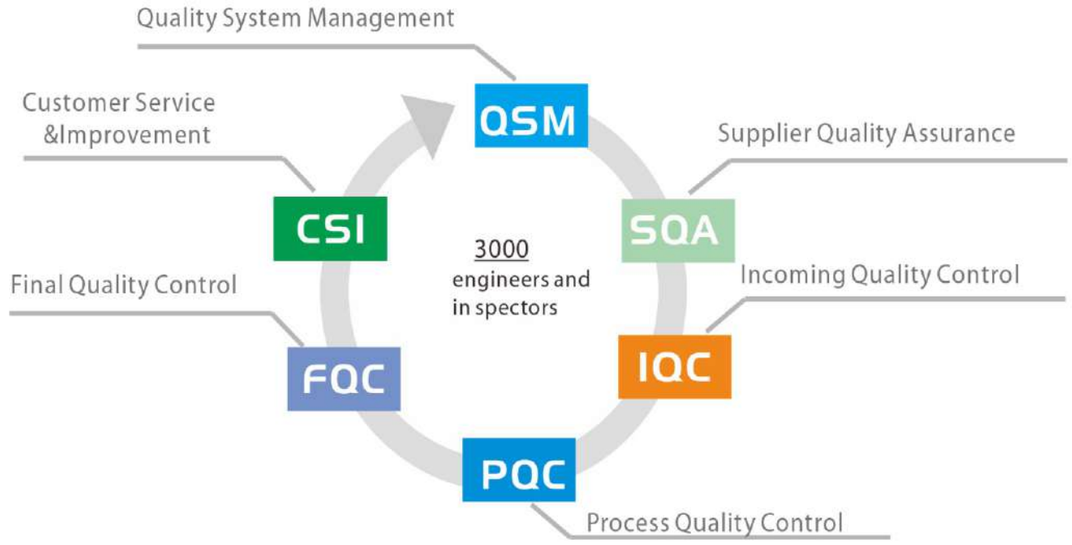
NEWEX Solution

Efficiency Solution

9k-36k, up to SEER 26

Project Solution

quality Assurance



Service Solution

A DIVISION OF NEWEX INTERNATIONL

NEOTECO
NEW ECO TECHNOLOGY THAT INNOVATES

Brand Solution

RefComp

Condensing Unit

Compressor

SINRO

Modulating motorized Ball Valve

motorized Valve

Snooker®

Erect Ice Machine

Superfine Snow Ice Machine

VENTECH

Square Diffusers

Round Diffusers

R&D Team

Haier, with it global revenue reaching 25.8 billion USD, is the number one brand of Major Appliance in the world with 8.6% retail volume share in 2012.

Product Family

Powered by Climate Technologies

H Heating

V Ventilation

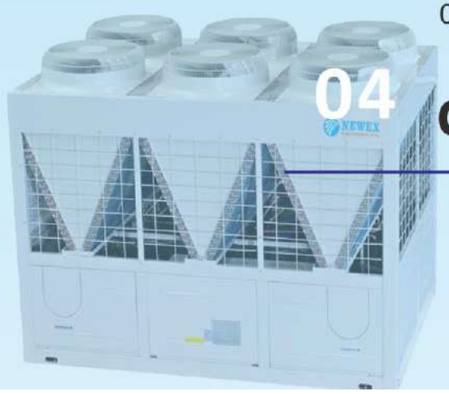
AC Air conditioning

R Refrigeration

Parts & Supplies

Secared by Real Experts
Project Materials

CONTENTS



Residential

NEWEX

Mini split

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Model	Cooling		Heating		Net(WxHxD)		Net/Gross weight		Loading
	Capacity Btu/h	Capacity KW	Capacity Btu/h	Capacity KW	Indoor unit mm	Outdoor unit mm	Indoor unit (Kg)	Outdoor unit (Kg)	Capacity/40'HQ Sets
NAS-09HCN/I	9000	2700	9000	2750	745x250x210	700x225x500	9/11	25/29	315
NAS-12HCN/I	12000	3300	12300	3600	780x276x202	715x235x540	10/12	28/33	246
NAS-18HCN/I	18000	5100	19000	5500	900x296x222	795x540x255	13/15	38/42	240
NAS-24HCN/I	24000	7200	25000	7400	1080x302x220	870x310x700	16/20	58/64	149

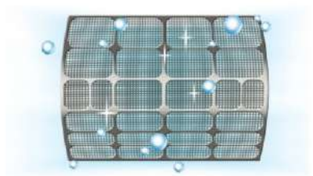
R410a Eco-Friendly Refrigerant

The Eco-friendly, fluoride-free refrigerant R410a protects the ozone layer, ensures higher efficiency and enhances energy-saving.

R410a environmental refrigerant

Washable Filter

Patented disassembling technology offers easier detachment, so filter mesh may be cleaned at will.



Faster Air Supply

Shocking Cooling within 30 seconds, and fast heating within 2 minutes. International branded efficient compressor provides strong power for the AC, so as to achieve quick cooling and heating

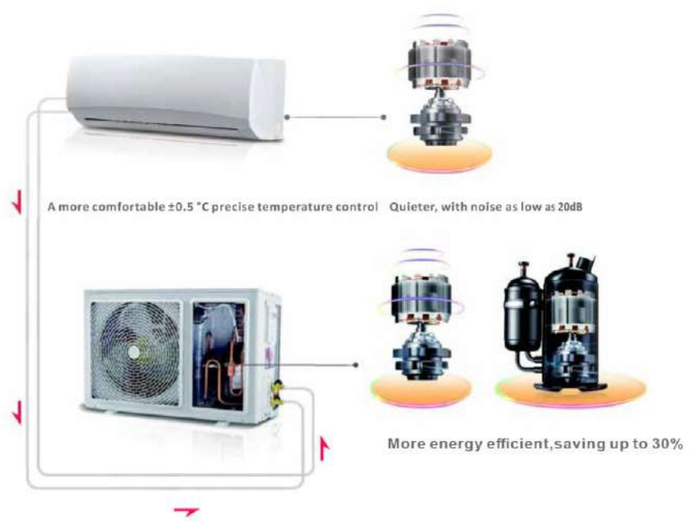
Mini split

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Model	Cooling		Heating		Net(WxHxD)		Net/Gross weight		Loading
	Capacity Btu/h	Capacity KW	Capacity Btu/h	Capacity KW	Indoor unit mm	Outdoor unit mm	Indoor unit (Kg)	Outdoor unit (Kg)	Capacity/40'HQ Sets
NAS-V09HCN/I	9000	2650	9400	2900	745x250x210	715x540x235	9/11	28/33	290
NAS-V12HCN/I	12000	3500	12600	3700	800x280x195	715x540x235	10/12	29/33	280
NAS-V18HCN/I	18000	5100	18500	5500	900x296x222	850x605x295	13/15	40/45	170
NAS-V24HCN/I	24000	7000	25300	7400	1080x302x220	870x700x310	16/20	56/63	135

3D DC Inverter Technology

The high efficiency DC inverter compressor and brushless DC motors, combined with full DC control safeguards motor speed and refrigerant flow through real-time adjustments to changes in the environment, thus ensuring maximum cooling and heating efficiency



NEWEX

Floor Standing AC

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Fashionable LCD Display

M Floorstanding is equipped with a fashionable display board, which concisely shows all the operation status via LCD screen.

Unique Grill Design

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Wide Range of Air Supply

The height of the air outlet is 910mm,whose air supply can reach up to 10m. with a wider range of air t1ow.

Turbo Mode

This function can boost cooling or heating spead in a short period, and makes the room cool down or heat up rapidly

Fresh Air

Fresh outside air can be lead into the room via a connection pipe, make air quality healthier.

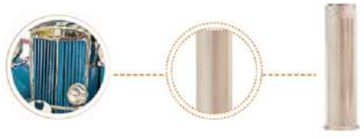
3D Air Flow

The combination of vertical and horizontal auto swing function ensures an even distribution of air throughout the room

Model	Cooling		Heating		Net(WxHxD) mm	Net/Gross weight (Kg)	Loading Capacity (20'/40'/40'HQ) Sets
	Capacity Btu/h	Capacity KW	Capacity Btu/h	Capacity KW			
NAF-24HC/I	24000	7	24000	7	500x315x1700	36.2/44	36/75/87
NAF-36HC/I	36000	10.5	36000	10.5	550x418x1824	53/67	22/48/56
NAF-48HC/SI	48000	14.1	48000	14.1	550x418x1824	53/67	18/38/50
NAF-60HC/SI	60000	17.6	60000	17.6	600x455x1934	64/84	17/43/42

Unique Grill Design

The artistic grill is inspired from vintage cars which is decorative and charismatic.

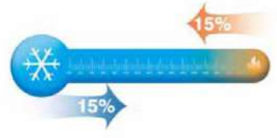


Low Noise (Lowest 22dB)

The noise can be as low as 22dB (lowest).

Fast Cooling/Heating

The compressor achieves maximum frequency in the shortest time from start up. Temperaturecools down 15% faster thannventional type.



Model	Cooling		Heating		Net(WxHxD) mm	Net/Gross weight (Kg)	Loading Capacity (20'/40'/40'HQ) Sets
	Capacity Btu/h	Capacity KW	Capacity Btu/h	Capacity KW			
24000BTU	24000	7	24000	7	500x315x1700	36.2/44	36/75/87
36000BTU	36000	10.5	36000	10.5	550x418x1824	53/67	22/48/56
48000BTU	48000	14.1	48000	14.1	550x418x1824	53/67	18/38/50
60000BTU	60000	17.6	60000	17.6	600x455x1934	64/84	17/43/42

换掉

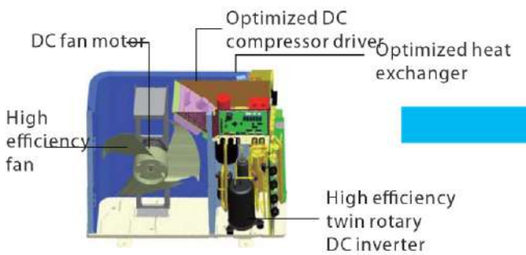
NEWEX

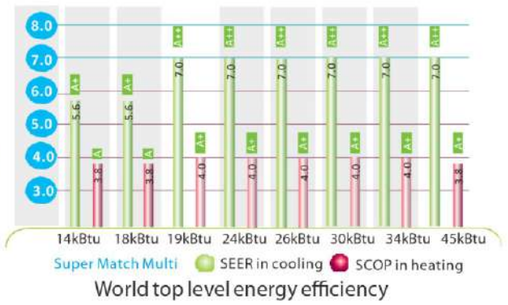
U-Cool Series

Free Match
From 1 to 5 Indoors

Feature

High Efficiency & Comfortable





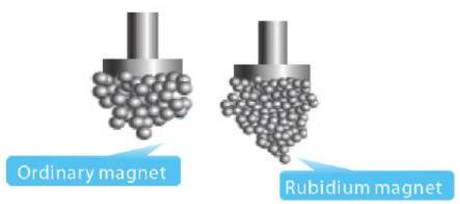
World top level energy efficiency

Wider Application

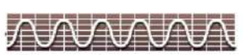
- Wider frequency application
  Equipped with various DC components, the new Multi system is applicable both for 50Hz and 60Hz electricity condition.
- Wider voltage range
  Working voltage: 208V~240V
  The system is more tolerance in unstable voltage conditions.

50Hz 60Hz

Hi-efficiency Double-rotary Compressor Equipped Rubidium Magnet



The Latest 180° Sine Wave DC Drive Technique



Hisense sine-wave driver

Common driver

Product line-up

Indoor Units

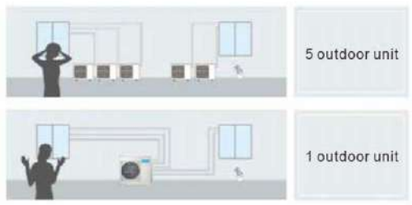
Series	Pictures	7K	9k	12k	18k	24K
split		●	●	●	●	●
Floor Ceiling		●	●	●		
Cassette		●	●	●	●	
Slim Cassette						●
Duct		●	●	●	●	●

Outdoor Units

Series	Pictures	16K	18k	21k	27/28k	36K	42K
1 drive 2		●	●				
1 drive 3				●	●		
1 drive 4					●	●	
1 drive 5							●

Free Match VS Regular Split A/C

- Space Saving,more elegant
- Higher Technology,Energy Saving
- Higher Flexibility, more choices



Portable AC

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410a 50Hz ON/OFF

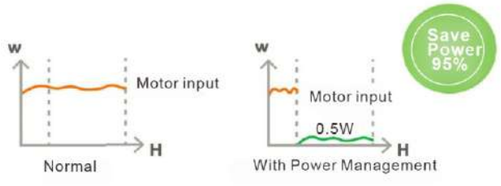
Model	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm	Net/Gross weight (Kg)	Loading Capacity (20'/40'/40'HQ) Sets
NAP-09CN/I	9000	2600	-	-	454x365x700	26.6/31.2	132/274/4.3
NAP-09CN/I	9000	2600	-	-	466x397x765	32/35.5	114/238/356
NAP-09HCN/I	9000	2600	7800	2300	466x397x765	32.5/36	114/238/356
NAP-12CN/I	12000	3500	-	-	466x397x765	32.5/37.5	114/238/356
NAP-12HCN/I	12000	3500	10000	2900	466x397x765	34/38.8	114/238/356

Heat Pump Function

Heat pump system is an excellent alternative for the traditional heating system, as the former can provide more heating capacity and is more efficient.Moreover, thanks to the air circulating fast throughout the room, this heating system guarantees comfort much more quickly.

Power Management

When room temperature reaches setting temperature, power management control system will get unit running into low input standby mode, which cuts 95% power off.



Dehumidifier

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410a 50Hz ON/OFF

Model NAC-	Moisture Removal 30æ ,RH80% (l/h)	Operating Current 30æ ,RH80% (A)	Water tank volume L	Net(WxHxD) mm	Net/Gross weight (Kg)	Loading Capacity (20'/40'/40'HQ) pcs
NAD-30N/I	30	2.5	3	392x282x616	15.3/16.4	432/884/1085
NAD-40N/I	40	2.7	6	392x282x616	18.1/19.5	288/588/778
NAD-50N/I	50	3.6	6	386x260x500	19.8/21.2	288/588/778

Smart Dehumidifying(Optional)

Automatically control room humidity in a comfortable range 45%-55% according to room temperature, inhibit bacterial growth.

Dryer Mode(Optional)

Intelligent Dryer Mode to dry up clothes quickly

PTAC

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Cooling Only (Fixed Type)

Model	Capacity Btu/h	Cooling Power input W	EER Btu/h	Net(WxHxD) inch	Net weight LBS	Qty'per(20'/40'/40'/HQ) Set
NAM-07CN/2I	6800/7200	550/585	13/12.8	42x21x16	97	72/152/190
NAM-09CN/2I	9300/9500	765/785	12.1/12.1	42x21x16	100	72/152/190
NAM-12CN/2I	12280/12750	1050/1090	11.7/11.7	42x21x16	108	72/152/190
NAM-15CN/2I	14300/14500	1345/1365	10.6/10.6	42x21x16	110	72/152/190

Cooling with Electric Heater (Fixed Type)

Model	Capacity Btu/h	Cooling Power input W	EER Btu/h	Optional E-heater KW	Net(WxHxD) inch	Net weight LBS	Qty'per(20'/40'/40'/HQ) Set
NAM-07CN/2I	6800/7200	520/560	13.0/12.8	2.0/2.5/3.6	42x21x16	97	72/152/190
NAM-09CN/2I	9300/9500	765/785	12.1/12.1	2.0/2.5/3.6	42x21x16	100	72/152/190
NAM-12CN/2I	12280/12750	1050/1090	11.7/11.7	2.0/2.5/3.6/(3+2)	42x21x16	108	72/152/190
NAM-15CN/2I	14300/14500	1345/1365	10.6/10.6	2.0/2.5/3.0/3.6/(3+2)	42x21x16	110	72/152/190

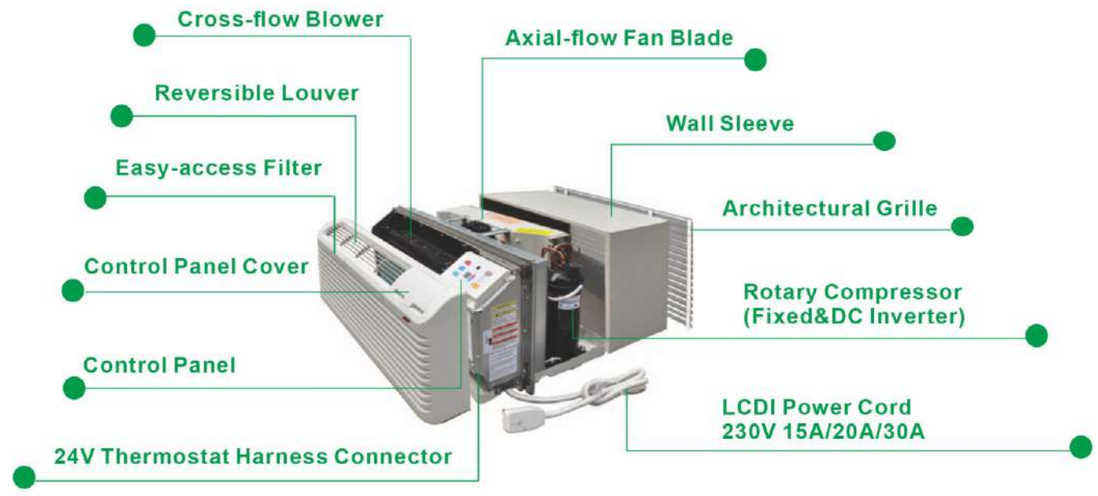
Heat pump with Electric Heater (Fixed Type)

Model	Capacity Btu/h	Cooling Power input W	EER Btu/h	Optional E-heater KW	Net(WxHxD) inch	Net weight LBS	Qty'per(20'/40'/40'/HQ) Set
NAM-07HCN/2I	6800/7200	520/560	13.0/12.8	2.0/2.5/3.6	42x21x16	99	72/152/190
NAM-09HCN/2I	9300/9500	765/785	12.1/12.1	2.0/2.5/3.6	42x21x16	102	72/152/190
NAM-12HCN/2I	12280/12750	1050/1090	11.7/11.7	2.0/2.5/3.6/(3+2)	42x21x16	110	72/152/190
NAM-15HCN/2I	14300/14500	1345/1365	10.6/10.6	2.0/2.5/3.0/3.6/(3+2)	42x21x16	112	72/152/190

Heat pump with Electric Heater (Inverter Type)

Model	Capacity Btu/h	Cooling Power input W	EER Btu/h	Heating Power input W	EER Btu/h	Cop w/w	Net(WxHxD) inch	Net weight LBS	Qty'per (20'/40'/40'/HQ) Set
NAM-V09HCN/2I	9600/9400	820/800	11.7/11.7	820/800	11.7/11.7	3.6	42x21x16	106	72/152/190
NAM-V12HCN/2I	12200/12000	1065/1045	11.5/11.5	1065/1045	11.5/11.5	3.6	42x21x16	106	72/152/190
NAM-V15HCN/2I	15200/15000	1400/1380	20.6/10.6	1400/1380	20.6/10.6	3.5	42x21x16	108	72/152/190

Ket Components



Silent Design

Optimized air discharge channel design,specialized biower wheel,bigger diameter 120^700mm,lower rotational speed,all contributing lower nolse level indoor noise level(L/H)can be low to 36/45.

Three kinds of control ways

Panel control,remote control,wire control

VTAC

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Product Parameters

Model	Cooling Capacity (Btu/h)	Heating Capacity (Btu/h)	EER	COP	Dimension Unit (WxHxD) (inch)
NAV-09HCN/I	9300/9100	8500/8300	12.1	3.5	23 x 23 x 32
NAV-12HCN/I	11700/11500	10500/10300	11.8	3.5	23 x 23 x 32
NAV-18HCN/I	17000/16800	15700/15500	11.0	3.3	23 x 23 x 32

DC Brushless Motor

The indoor and outdoor side are all designed with full DC brushless motor, stepless regulation, fully consider the user's individualized demand for air conditioning air supply, and provide refined and comfortable experience, lower noise, more stable operation and higher energy efficiency.

24V Control

24V control protocol allows customers to choose different controller according to their needs.

Excellent Heat Exchange

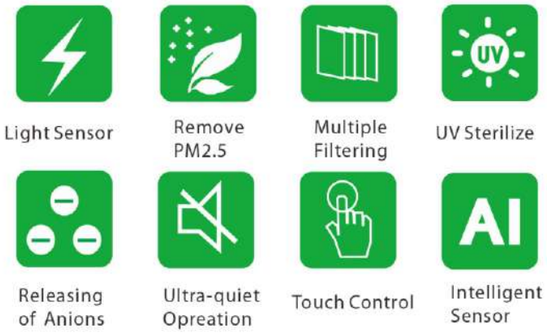
Indoor side adopts centrifugal wind wheel, outdoor side adopts axial fan blade to meet the requirements of air volume, wind pressure and noise

Protective Measures

Protective Measures for Electric Heating :Temperature Controller, Fuse.

Large Air Purifiers

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.



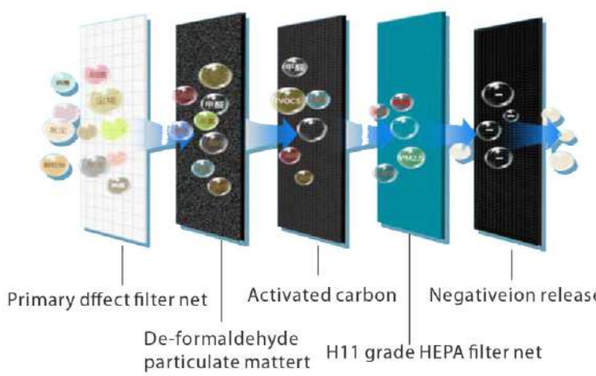
Performance Index

CADR	Rated Power	Moto	Applicable Area	N.W	Product Size
600m3/h	85W	DC Moto	42~72m2	9.8kg	479x269x710mm

Deep filtration and purification

2Layer filters,5purification

- Primary dffect filter net :Filtering particulate matter, canbe washed
- De-formaldehyde particulate mattert:Highly efficient adsorb formaldehyde
- Activated carbon:Decomposes formaldehyde,TVOCs and other harmful gas
- H11 grade HEPA filter net:Filter PM2.5,viruses, allergens and others
- Negativeion release:To cause a suspension in the air fall



Light Commercial

013 Cassette

015 Floor ceiling

017 Ducted

021 Air Handler

Cassette

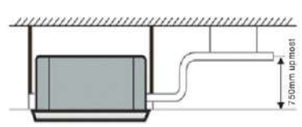
Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410A Heat Pump

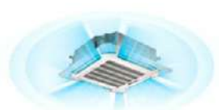
Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAC-18HCN/I	18,000	1.5	20,000	1.7	840X230X840	866X535X304	24/29	41/43
NAC-24HCN/I	24,000	2.0	26,000	2.2	840X230X840	930X700X370	24/29	52/56
NAC-36HCN/I	36,000	3.0	39,000	3.3	840X285X840	1070X995X400	28/33.5	92/100
NAC-48HCN/I	48,000	4.0	52,000	4.3	840X285X840	911×1335×400	28/33.5	99/110
NAC-60HCN/I	60,000	5.0	60,000	5.0	840X285X840	911×1335×400	30.5/36	91/100

Features:

The built-in drain pump can lift the condensing water to 750mm 360° Air Flow Panel



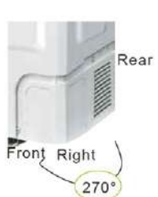
360° Air Flow Panel



Lifting Easy-clean Panel

Wired controller

Multi-direction piping connection meets different requirement,convenient installation.



Inner-grooved tube,enhance the heat exchanger efficlency. Mdlti protection like high pressure protection,high temperature protection,etc.

Cassette

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

60hz R410A EER 2.8 Heat Pump

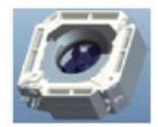
Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAC-24HCN/2I	24,000	2.0	26,400	2.0	840X230X840	554X635X554	28/32	50.7/52.9
NAC-36HCN/2I	36,000	3.0	39,600	3.0	840X285X840	554X673X554	31/35	60/63
NAC-48HCN/2I	48,000	4.0	52,800	4.0	840X285X840	740X835X740	31/35	85.7/89.9
NAC-60HCN/2I	60,000	5.0	66,000	5.0	840X285X840	740X835X740	34/37.5	91.4/95.6

Features:

New light panel for standard type

New streamlined fan design

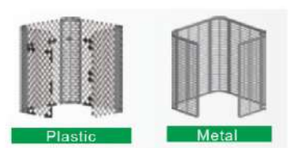
Integrated electric control box, Fir resistance design,the E-box with galvanized steel built-in body easy for maintenance



Golden hydrophic aluminum fins for option.

World famous scroll compressor,quick reactivity and stable operation.Anti-attenuation design,better low-temperature heating performance.

Metal cptional&plastic grille for your choice



Ceiling Unit

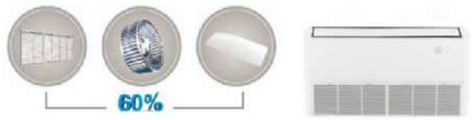
Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410A Heat Pump

Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAU-18HCN/I	18,000	1.5	19,800	1.7	880X635X203	866X535X304	30/35	41/43
NAU-24HCN/I	24,000	2.0	26,000	2.2	1245X680X247	930X700X370	35/41	52/56
NAU-36HCN/I	36,000	3.0	39,000	3.3	1245X680X247	1070X995X400	37/43	92/100
NAU-48HCN/I	48,000	4.0	52,000	4.3	1670X680X247	911X1335X400	47/54	99/110
NAU-60HCN/I	60,000	5.0	60,000	5.0	1670X680X247	911X1335X400	47/54	99/110

Easy maintenance

More than 60% parts and assemblies(such as fun wheel, plastic cases,metal parts) are universal for 3 different bodies ,which makes the production and maintenance much easier.



3D Air Flow

Auto-swing function,built-in two louver motor,vertical and horizontal air-flow adjustment.

Wired controller

Compared with remote controller,wired controller can be fixed on the wall and avoid mislaying. It is mainly used for commercialzone and makes the air

New upper and lower buckle type wheelcase,the upper wheel case can be removed alone,which is convenient adjust the wheelmotor.

Ceiling Unit

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

60hz R410A EER 2.8 Heat Pump

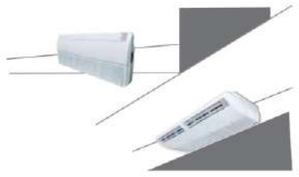
Model NAC-	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAU-24HCN/2I	24,00,0	2.0	264,0,0	2.0	1245X680X247	554X635X554	37/43	50.7/52.9
NAU-36HCN/2I	36,000	3.0	39,600	3.0	1245X680X247	554X673X554	37/43	60/63
NAU-48HCN/2I	48,000	4.0	52,800	4.0	1245X680X247	740X835X740	49.7/57	85.7/89.8
NAU-60HCN/2I	60,000	5.0	60,600	5.0	1245X680X247	740X835X740	49.7/57	91.4/95.6

Features

Built-in with water pump,pumping head is up to 1200 mm(Optional).

Digital display,more intuitive and somple,and the error code can be show in the display(Optional).

Flexible installation,ceiling suspended and floor standing.



24V universal communication connection,safe and simple.

MediumESP Duct

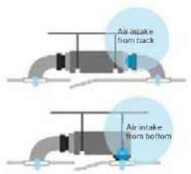
Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410A Heat Pump

Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAT-18HCN/I-B	18,000	1.5	19,800	1.7	1189X260X643	866X535X304	33/36	41/43
NAT-24HCN/I	24,000	2.0	26,000	2.2	1189X260X643	930X700X370	32/37	52/56
NAT-36HCN/I-B	36,000	3.0	39,000	3.3	1189X260X643	1070X995X400	33/37	92/100
NAT-36HCN/I	36,000	3.0	39,000	3.3	1425X260X643	1070X995X400	44/48	92/100
NAT-48HCN/I	48,000	4.0	52,000	4.3	1425X260X643	911X1335X400	44/48	99/110
NAT-60HCN/I	60,000	5.0	60,000	5.0	1425X260X643	911X1335X400	44/48	99/110

Flexible Air Intake Ways

Air inlet from back standard and from bottom optional. The size of the plate from bottom and flange from back is the same, it's easy for installer to change the air inlet from back to bottom

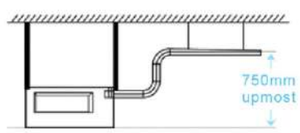


Twin Combination

The units can be installed as twin systems: one outdoor unit can be connected with two same indoor units. The indoorunits can be combined in any of the different available ratings.

Built-in Drain pump(Optional)

The Drain punm can lift the condensing water up to 750mm



MediumESP Duct

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

60hz R410A EER 2.8 Heat Pump

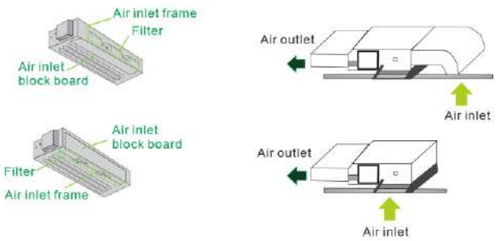
Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAT-24HCN/2I	24,000	2.0	264,00	2.0	1189X260X643	554X635X554	32/37	50.7/52.9
NAT-36HCN/2I	36,000	3.0	39,600	3.0	1189X260X643	554X635X554	33/37	60/63
NAT-48HCN/2I	48,000	4.0	52,800	4.0	1425X260X643	740X835X740	47/51	85.7/89.9
NAT-60HCN/2I	60,000	5.0	60,600	5.0	1425X260X643	740X835X740	48/52	91.4/95.6

Features

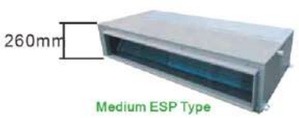
Adopting aviation centrifugal fan blade with specia air tunnel design,as well as fan motor anti-vibration measure,benefit to increase air flow and decrease the noise.

Three fan speed,meeting different requirements.

Air retum method is optional by actual installation, from rear or from bottom.



Ultra-thin body design.



High ESP Duct

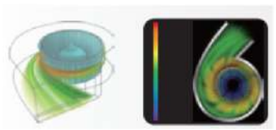
Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410A Heat Pump

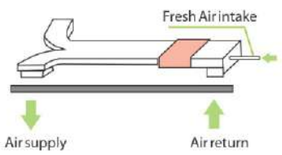
Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAT-48HCN/I	48,000	4.0	52,500	4.4	1175X375X625	911X1335X400	45/49	99/110
NAT-60HCN/I	60,000	5.0	60,000	5.0	1175X375X625	911X1335X400	45/49	99/110

Features:

Centrifugal fan,low noise and big airflow

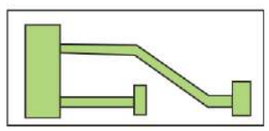


Install a duct to outside in the air return side,realize the fresh air intake and keep room air fresh.

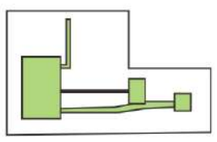


In order discharge condensate water relably,water pump optional.

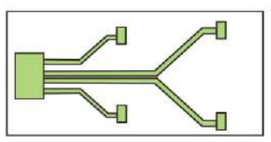
120Pa ESP is standard,it is suitable for distance air supply and flexible air duct installation.Specially for different irregular size room.



Long and narrow size room



L size room



Oversize room

High ESP Duct

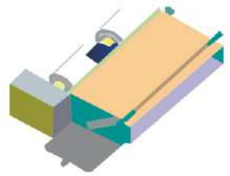
Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

R410A Heat Pump

Model	Cooling Capacity Btu/h	Cooling Capacity TR	Heating Capacity Btu/h	Heating Capacity TR	Net(WxHxD) mm Indoor unit	Net(WxHxD) mm Outdoor unit	Net/Gross weight (Kg) Indoor unit	Net/Gross weight (Kg) Outdoor unit
NAT-48HCN/2I	48,000	4.0	52,500	4.4	1175X375X625	740X835X740	45/49	85.7/89.9
NAT-60HCN/2I	60,000	5.0	60,000	5.0	1175X375X625	740X835X740	45/49	91.4/95.6

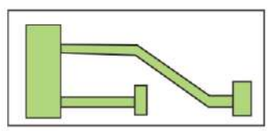
Features:

E-box is body-side design for Low ESP Ducted Unit,convenient installation and maintenance.

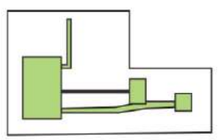


Filter can be taken out easily for clear.Easy maintenance.

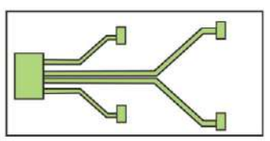
120Pa ESP is standard,it is suitable for distance air supply and flexible air duct installation.Specially for different irregular size room.



Long and narrow size room



L size room



Oversize room

Air Handler (13&14 SEER)

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

SEER13

Model NAC-	Cooling/heating Kbtu/h	SEER	External Static pressure(pa)	Air Flow (CFM)	Net(WxHxD) inch Indoor unit	Outdoor unit
AHT24HN21	23.6/22.5	13	25	938/804/738	20X46X22	22X22X25
AHT36HN21	34.0/34.0	13	37	1376/1235/1161	20X46X22	29X29X25
AHT48HN21	46.0/47.5	13	50	1695/1574/1434	22X55X24	29X29X33
AHT60HN21	56.0/55.0	13	50	1695/1574/1434	22X55X24	29X29X33

SEER14

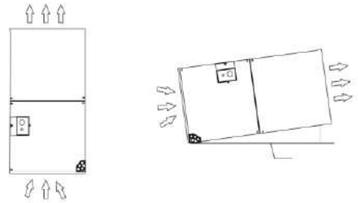
Model NAC-	Cooling/heating Kbtu/h	SEER	External Static pressure(pa)	Air Flow (CFM)	Net(WxHxD) inch Indoor unit	Outdoor unit
AHT24HN21	23.6/22.5	14	25	938/804/738	20X46X22	22X22X25
AHT36HN21	34.0/34.0	14	37	1376/1235/1161	20X46X22	29X29X25
AHT48HN21	46.0/47.5	14	50	1695/1574/1434	22X55X24	29X29X33
AHT60HN21	56.0/55.0	14	50	1695/1574/1434	22X55X24	29X29X33

Expansion device

Use piston as expansion device (13 SEER air handler)
Use TXV as expansion device (14 SEER air handler)

Multi-position installation

Versatile 4-way convertible design for vertical up airflow, horizontal right airflow.



Air Handler (18 SEER)

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

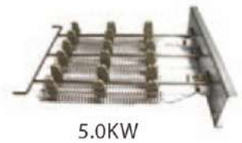
SEER18

Model NAC-	Cooling Capacity(Btu/h)	SEER	Heating Capacity(Btu/h)	HSPF	ESP(pa)	Air Flow (CFM)	Net(WxHxD) inch Indoor unit	Outdoor unit
AHT24HN21	24,000	18.5	24,000	9.5	25	780	20X46X22	22X22X25
AHT36HN21	36,000	1.5	34,000	9	37	1300	20X46X22	29X29X25
AHT48HN21	48,000	18.5	46,500	9.5	50	1500	22X55X24	29X29X33
AHT60HN21	57,000	17.5	55,000	9.5	50	1750	22X55X24	29X29X33

Features of AHU (18 SEER)

Optional Electric Heating with Different Power.

Description Ref.	Air Handler use
5.0 kW Electric Heating	24K,36K,48K,60K
7.5 kW Electric Heating	24K,36K,48K,60K
10.0kW Electric Heating	24K,36K,48K,60K
15.0kW Electric Heating	36K,48K,60K
20.0kW Electric Heating	48K,60K



5.0KW

7.5KW

Features of outdoor unit (18 SEER)

The refrigerant pipeline cooling and fin cooling are used to cool the electronic control board.Make the circuit temperature more stable and the operation life longer.

fin Cooling

refrigerant pipeline cooling

Multi protections to avoid unit broken.

Discharge Temp. Protection | Sensor T3. Protection | Low Pressure Protection | High Pressure Protection

VRF

Mini VRF

Choose electric heating in priority mode by dialing the switch and the room temperature will rise to a comfortable level in less time than heat pump heating mode.

Indoor Units
VRF V4 Plus indoor unit

Ventilationl
Heat recovery ventilator(HRV)

Control Systems
Smart control systems

VRF V4 Plus I Series - Heat Pump

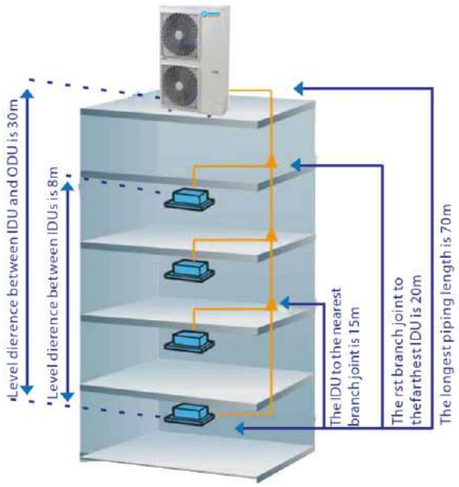
Power supply 220-240/1/50

Model	Cooling Capacity(KW)	Power input(KW)	EER	Heating Capacity(KW)	Power input(KW)	COP	Net(WXHXD) mm	Net/Gross weight kg
NVM-W80N/0	7.2(1.5-8.0)	1.85	3.90	7.2(1.6-8.4)	1.79	4.02	1073X1327X396	75.5/85.5
NVM-W105N/0	9.0(2.0-10.0)	2.30	3.92	9.0(2.1-10.5)	2.27	3.97	1073X1327X396	75.5/85.5
NVM-W120N/0	12.3	3.25	3.78	13.2	3.47	3.80	900X1327X400	95/106
NVM-W140N/0	14.0	3.95	3.54	15.4	4.16	3.70	900X1327X400	95/106
NVM-W160N/0	15.5	4.52	3.43	17.0	4.78	3.56	900X1327X400	100/111

Power supply 380-415/3/50

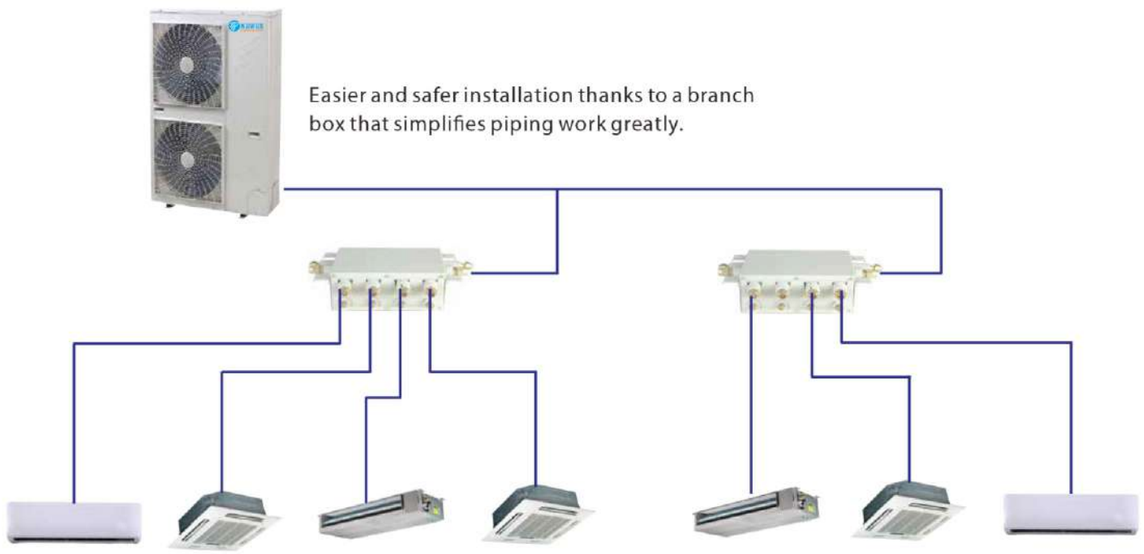
Model	Cooling Capacity(KW)	Power input(KW)	EER	Heating Capacity(KW)	Power input(KW)	COP	Net(WXHXD) mm	Net/Gross weight kg
NVM-W120N/S0	12.3	3.25	3.78	13.2	3.47	3.80	900X1327X400	95/106
NVM-W140N/S0	14.0	3.95	3.54	15.4	4.16	3.70	900X1327X400	95/106
NVM-W160N/S0	15.5	4.52	3.43	17.0	4.78	3.56	900X1327X400	102/113
NVM-W180N/S0	17.5	5.30	3.30	19.0	5	3.80	900X1327X400	107/118

Long Piping Length



	8-10.5kW	12-18kW
Total piping length	100m	100m
Longest length actual (Equivalent)	45(50)m	60(70)m
Longest length after rst branch	20m	20m
Level di erence between indoor and outdoor units - ODU up (down)	30(20)m	30(20)m
Level di erence between indoor units	8m	8m

More Convenient Piping Connector – Branch Box



Easier and safer installation thanks to a branch box that simplifies piping work greatly.


World-class Quality
Ensures Reliable Excellence
100%

V6 VRF Redefine

Strong Performance

Indoor Units
VRF V4 Plus indoor unit

Ventilationl
Heat recovery ventilator(HRV)

Control Systems
Smart control systems

18/20/22HP
(with dual fans)

24/26/28/30/32HP
(with dual fans)

36/38HP

84/86/88/90/92/94/96HP

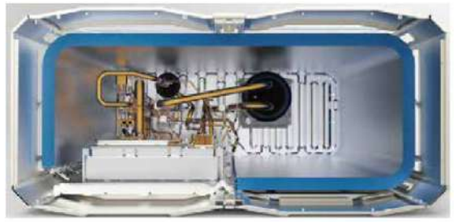
Specifications

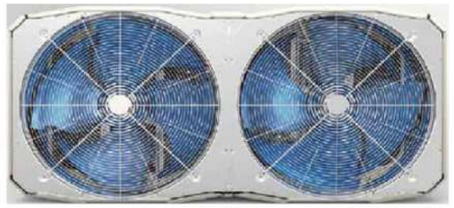
Model NAC-	Cooling1 Capacity (KW)	Power input (KW)	EER	Heating2 Capacity (KW)	Power input (KW)	COP	Air flow rate m3/h	Net(WxHxD) mm
NVF-W252N/S(4)D	25.2	5.30	4.75	25.20	4.60	5.5	11000	990X1635X 790
NVF-W280N/S(4)D	28	6.30	4.45	28.00	5.20	5.4	11000	990X1635X 790
NVF-W335N/S(4)D	33.5	8.70	3.85	33.50	6.60	5.1	11000	990X1635X 790
NVF-W400N/S(4)D	40	9.90	4.05	40.00	8.50	4.7	13000	1340X1635X850
NVF-W450N/S(4)D	45	12.00	3.75	45.00	9.80	4.6	13000	1340X1635X850
NVF-W500N/S(4)D	50	12.50	4.00	50.00	10.60	4.7	17000	1340X1635X825
NVF-W560N/S(4)D	56	15.10	3.70	56.00	12.70	4.4	17000	1340X1635X825
NVF-W615N/S(4)D	61.5	18.40	3.35	61.50	15.00	4.1	17000	1340X1635X825
NVF-W670N/S(4)D	67	18.10	3.70	67.00	14.90	4.5	25000	1730X1830X850
NVF-W730N/S(4)D	73	20.90	3.50	73.00	17.60	4.15	25000	1730X1830X850
NVF-W785N/S(4)D	78.5	24.20	3.25	78.50	20.70	3.8	25000	1730X1830X850
NVF-W850N/S(4)D	85	27.40	3.10	85.00	23.00	3.7	24000	1730X1830X850
NVF-W900N/S(4)D	90	31.00	2.90	90.00	25.70	3.5	24000	1730X1830X850

High Effciency

High Efficiency G-Type Heat Exchanger

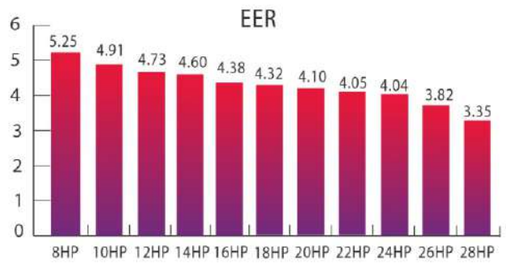
24-32HP units use high efficiency 3-rows G-type heat exchanger which heat exchange area is 1.5 times than 22HP unit. The 24-32HP units also use super big size fan which diameter is up to 750mm.

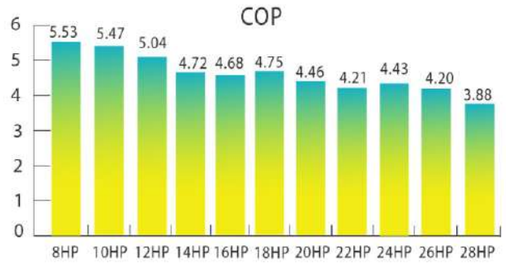




High EER and COP Values

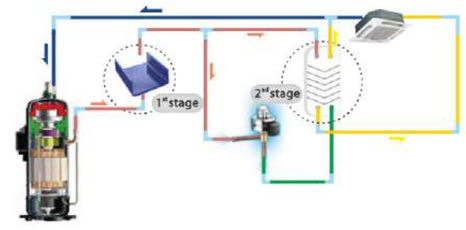
DC compressors and fan motors together with a high-efficiency heat exchanger combine to give the V6 Series top-class energy efficiency in cooling and heating.





PHE (Plate Heat Exchanger) Subcooling

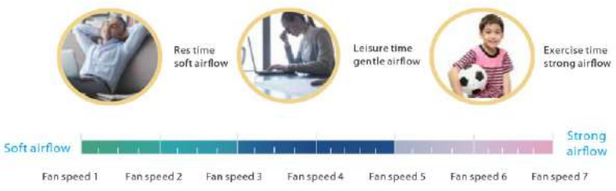
Plate Heat Exchanger as a secondary intercooler to gain up to 18oC subcooling and improves 10% energy efficiency.



Enhanced Comfort

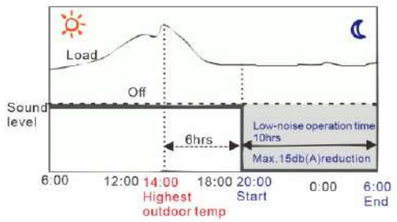
7 Indoor Fan Speed Adjustment

7 indoor fan speed adjustments design can maximum meet the needs of different conditions, providing control flexibility.



Night Silent Mode

The night silent mode feature, which is easily configured on the outdoor unit's PCB, includes various scheduling options that can be used to reduce noise levels at times when low noise operation is required.



High Reliability

Refrigerant Cooling PCB

The V6 VRF uses refrigerant cooling technology to cool the electric control box. It decreases the average temperature of electrical control components by about 8 degrees, guaranteeing the stable and safe running of the control system.

Auto Snow-blowing Function*

The innovatively designed auto snow-blowing function enables the outdoor unit to prevent the accumulation of snow by itself.

*This function needs to be customized.

Precise temperature control

V6 outdoor unit uses multiple and high precision EXVs to create comfortindoor environment. The EXV control precision is up to 480-stage which can precisely control refrigerant flow and guarantee stable indoor temperature.

Backup Operation

In one unit with two compressors, if one compressor is failed, the other compressor can be backup instead of the failed one to maintain up to 4 days interim capacity, allowing time for maintenance or repair while comfort remains guaranteed.

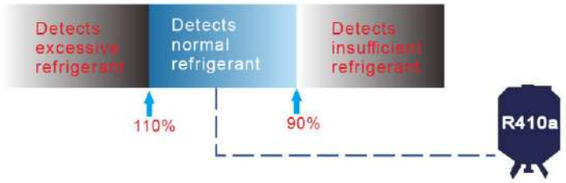
Dust-clean function*

The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.

*This function needs to be customized.

Real-time Refrigerant Amount Monitoring

The temperature and pressure of refrigerant can be real-time monitored by the outdoor unit. When the level of refrigerant is too low or too high, this can cause damage to the unit and poor performance. V6 utdoor unit can detect excessive or insufficient amounts of refrigerant, to ensure consistent performance.



Easy Installation and Service

Automatic Charging/Recycling Function*

Automatic refrigerant charging and recycling function makes the installation and service more easy and high efficiency.

*This function needs to be customized.

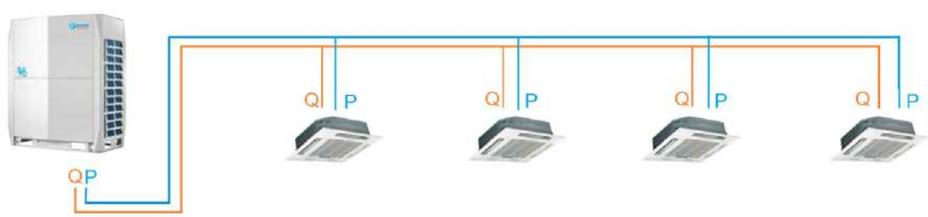
Optional Multifunctional PCB

An optional multifunctional small PCB is installed on the side columns, it greatly helps the installer or service man to set Auto-commissioning or CHECK the operation status without removing the front panel. It also can automatic data backup of last 30 minute's operation record.

Non-polarity Communication Wiring*

Only one group of communication wire of 2-core, non-polarity, and shield wire PQ achieved communication for indoor & outdoor unit.

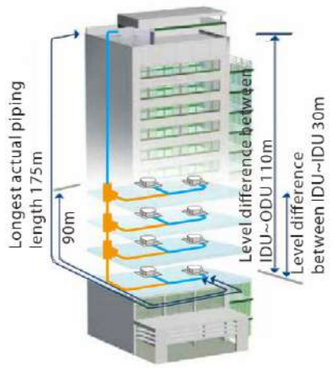
*If there's strong electromagnetic interference surrounded, please use 3-core shield cable instead.



High Reliability

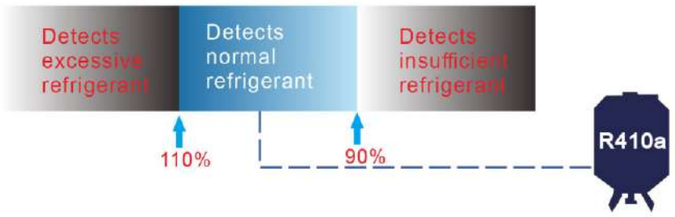
- Total piping length: 1000m
- Longest piping length-actual (equivalent): 175m(200m)
- Longest piping length after first branch: 40/90*m
- Level difference between IDUs and ODU-ODU above (below): 90m (110m)
- Level difference between IDUs: 30m

*The longest length after 1st branch is 40m as standard but can be extended up to 90m under certain conditons. Please contact your local Midea dealer for further information.



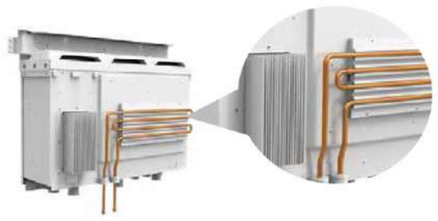
Real-time Refrigerant Amount Monitoring

The temperature and pressure of refrigerant can be real-time monitored by the outdoor unit. When the level of refrigerant is too low or too high, it can cause damage to the unit and poor performance. VC Pro outdoor unit can detect excessive or insufficient amounts of refrigerant to ensure consistent performance.



Refrigerant Cooling PCB

The V6 VRF uses refrigerant cooling technology to cool the electric control box. It decreases the average temperature of electrical control components by about 8 degrees, guaranteeing the stable and safe running of the control system.



Intelligent Configurations

Tintel l igent configurations greatl y s implif y installation, commissioning and servicing.

- Field local configuration achieves quick and easy on-site settings, simplifies installation and commissioning.
- System checking and settings also can be easily achieved via wired controller making the configuration more flexible and convenient.
- A desktop or laptop PC can be used for browser-based access to achieve system configurations through IMMPRO gateway via LAN connection.

Oil Balance pipe not required

With the new oil management system, there is no need of oil balance pipe.

Automatic Refrigerant Charging

Automatic refrigerant charging makes installation and service easier and more efficient.

*This function is available as a customization option.

Dust-clean function*

The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.

*This function is available as a customization option.

Precise temperature control

VC Pro outdoor unit uses multiple and high precision EXVs to create comfortable indoor environment. The EXV control precision is up to 3000-stage which can precisely control refrigerant flow and guarantee stable indoor temperature. In this way,temperature setting can be adjusted in 0.5°C step, enabling precise comfort control.

VRF VC Pro Series
Cooling Only

Indoor Units
VRF indoor units

Fresh Air Processing Unit
100% fresh air supply

Ventilationl
Heat recovery ventilator(HRV)

AHU Connection Kit
Connect to third party DX AHU

Control Systems
Smart control systems

18/20/22HP
(with dual fans)

24/26/28/30HP
(with dual fans)

34/36/38HP

84/86/88/90HP

Optimized design for small to large buildings

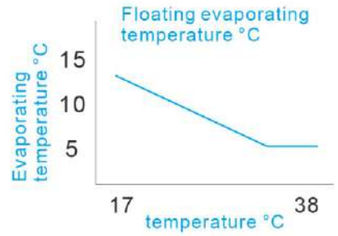
- ALL DC inverter compressors
- ALL DC fan motors
- Capacity up to 90HP
- Connectable indoor units quantity up to 64
- ESP up to 60Pa
- Duty cycling operation
- Backup operation
- Precise oil control technology
- Advanced silence technology
- Simple communication wiring
- Auto addressing
- Easy maintenance

VRF VC Pro Series - Cooling Only

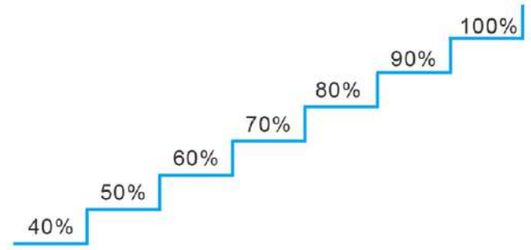
HP Model name	Capacity (KW)	Cooling1 Capacity (kBtu/h)	Power input (KW)	EER	Sound pressure level[3] d(B)A	Net(WxHxD) mm	Net/Gross weight (Kg)
NVF-W224N/S(4)D	22.4	76.5	5.17	4.33	57	960×1615×765	188/204
NVF-W280N/S(4)D	28.0	95.6	6.81	4.11	58	960×1615×765	188/204
NVF-W335N/S(4)D	33.5	114.4	9.13	3.67	60	960×1615×765	188/204
NVF-W400N/S(4)D	40.0	136.6	10.58	3.78	60	960×1615×765	197/213
NVF-W450N/S(4)D	45.0	153.7	12.26	3.67	63	960×1615×765	197/213
NVF-W500N/S(4)D	50.0	170.8	14.88	3.36	63	1250×1615×765	278/297
NVF-W560N/S(4)D	56.0	191.3	17.66	3.17	64	1250×1615×765	278/297
NVF-W615N/S(4)D	61.5	210.0	20.23	3.04	64	1250×1615×765	1278/297
NVF-W670N/S(4)D	67.0	228.8	20.68	3.24	64	1585×1615×765	338/362
NVF-W730N/S(4)D	73.0	249.3	23.40	3.12	64	1585×1615×765	338/362
NVF-W785N/S(4)D	78.5	268.1	26.08	3.01	64	1585×1615×765	338/362
NVF-W850N/S(4)D	85.0	290.3	29.51	2.88	64	1585×1615×765	338/362

Energy Management System (EMS)

Floating refrigerant temperature to balance comfort and efficiency.The evaporating temperature is automatically adjusted according to both indoor and outdoor temperature to maximize the comfort and energy efficiency.



Output limitation during electricity supply restrictions
With the integration of EMS, for projects with temporary electricity supply restrictions, VC Pro VRF can be set to output 40-100% capacity.



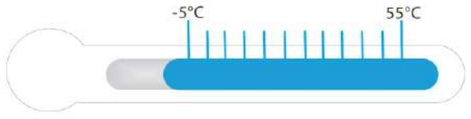
G-side heat exchanger

24-30HP units use a high efficiency G-shape heat exchanger with a heat exchange area 1.5 times that of the 22HP unit.

2-rows G-type heat exchanger

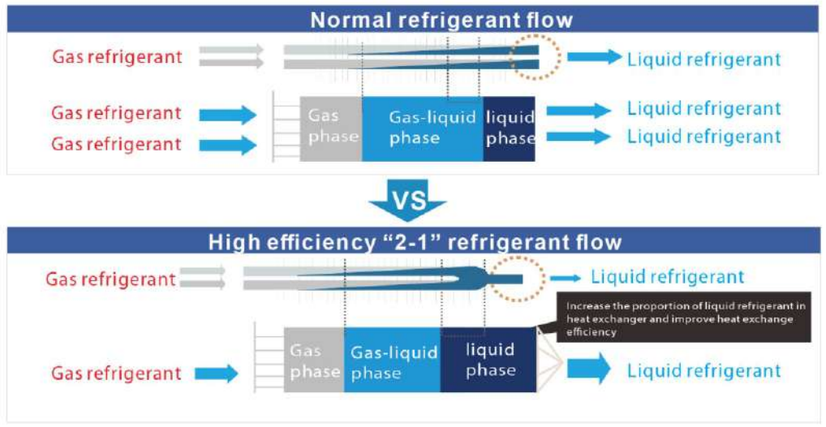
Wide Operation Range

The VC Pro VRF can operate stably in a wide ambient temperature range: from -5°C to 55°C in cooling mode.



High efficiency"2-1"refrigerant flow

The high efficiency"2-1" refrigerant flow design increases the proportion of liquid refrigerant in heat exchanger and improves heat exchange efficiency.



Indoor Units

VRF V4 Plus indoor unit

Ventilationl

Heat recovery ventilator(HRV)

Control Systems

Smart control systems

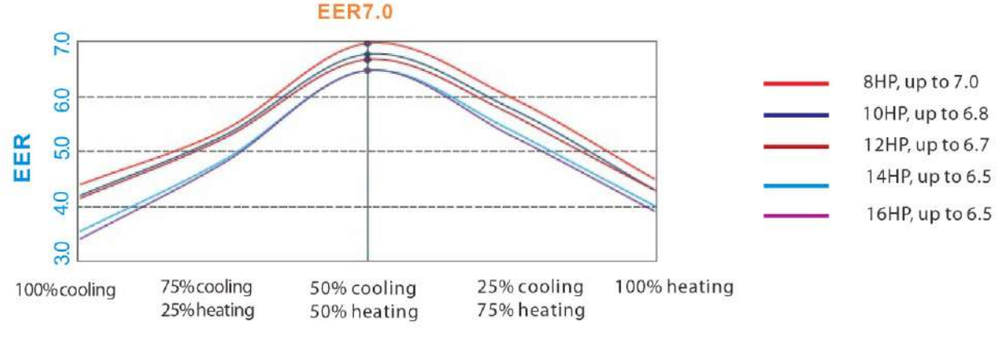
VRF V4 Plus R Series Heat Recovery

Oers simultaneous cooling and heating operation in one system

- ALL DC inverter compressors
- ALL DC fan motors
- Capacity up to 64HP
- Connectable indoor units quantity up to 64
- ESP up to 60Pa
- Cycle duty operation
- Backup operation
- Precise oil control technology
- Advanced silence technology
- Simple communication wiring
- Remote addressing
- Easy maintenance

Heat Recovery, EER up to 7.0

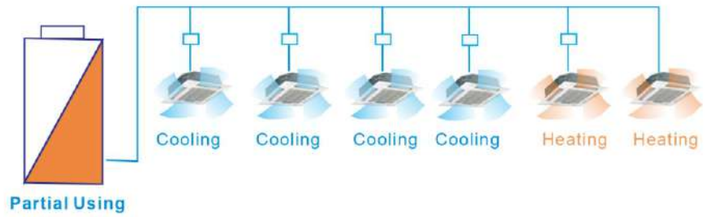
Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating, maximizing energy eciency, reducing electricity costs and leading to high partload eciencies (up to 7.0 in the 8HP category).



EER in simultaneous cooling and heating mode are based on the following condition:
Outdoor temperature 7°CDB/6°CWB, indoor temperature 27°CDB/19°CWB for cooling, indoor temperature 20°CDB for heating.

Adjustable Outdoor Heat Exchanger

Two parts condenser individual design, the unit can distribute a part of evaporator to be as condensing area according to the heating load requirement to improve the utilization rate of the condenser.



Innovative Mode Switch (MS) Box

Simultaneous cooling and heating achieved for new designed MS (Mode Switch) box.

- Low noise operation for precise control of multiple solenoid valves;
- Max. 24 indoor units connect to a MS box;
- Max. 56kW indoor units connect to a MS box;

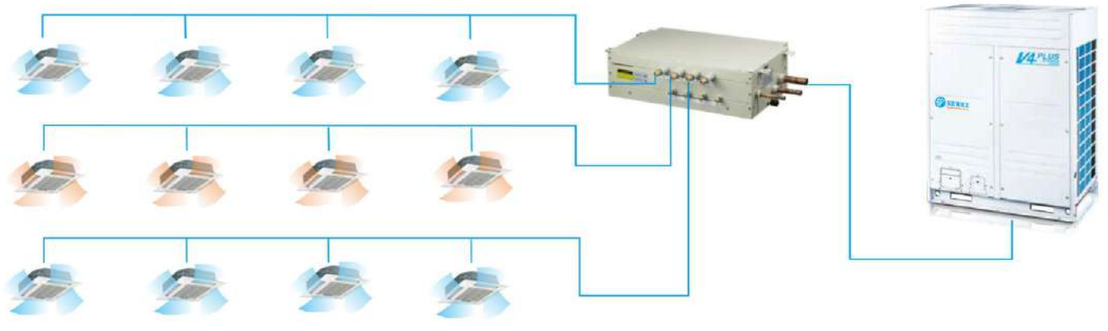
One group pipe with max. 4 indoor units connection

Two group pipes with max. 8 indoor units connection

Four group pipes with max. 16 indoor units connection

Six group pipes with max. 24 indoor units connection

- Indoor units connected to a same MS can realize simultaneous cooling and heating operation.



Indoor Units
VRF V4 Plus indoor unit

Fresh Air Processing Unit
100% fresh air supply

Ventilationl
Heat recovery ventilator(HRV)

AHU Connection Kit
Connect to other brand AHU

Control Systems
Smart control systems

VRF V4 Plus W Series Water Cooled

Perfect combined of water and refrigerant system

- DC inverter compressors
- Capacity up to 36HP
- Connectable indoor units quantity up to 59
- Cycle duty operation
- Backup operation
- Precise oil control technology
- Low noise operation
- Simple communication wiring
- Easy maintenance

Wide Range of Outdoor Units

The Water Cooled V4+W Series capacity ranges from 8HP to 36HP, meets all customer requirements from small to large buildings.

8/10/12HP

Max. 3 units combination

High Eciency Double-Pipe Heat Exchanger

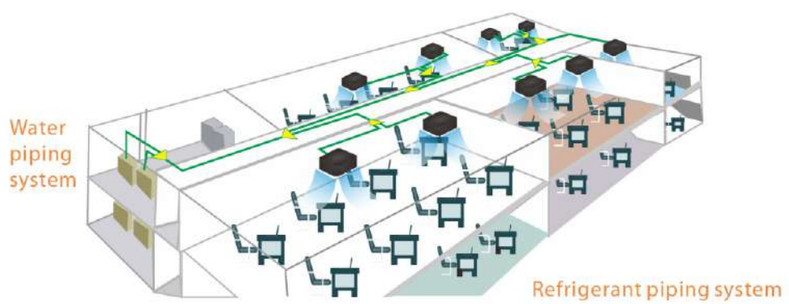
With the innovatively designed double-pipe heat exchanger, the water quality required is low. The water side has large circulation area, and it is not easily plugged, creating higher reliability and easier cleaning and maintenance.

Water Side Heat Recovery Function

In modern large-scale buildings, the load between the internal and external areas is dierent. It may occur in some situations that both cooling and heating are required. The V4 PLUS W Series not only can achieve meticulous system division in dierent areas but also can recover heat at the same time, signicantly improving energy eciency.

No Water Leakage

No water pipes installed indoors, no water leakage risks.



Wide Application Range

Wide Range of Indoor Units

With 11 types and more than 100 models, Midea VRF indoor units meet varied customer requirements in a wide range of locations including shopping malls, hospitals, oce buildings, hotels and airports.

Multiple Appearance Options

For Wall Mounted Units, three interchangeable panels add extra flexibility to a universal body design

M3 panel

M9 panel

M10 panel

For Four-way Cassette and Compact Four-way Cassette Units, interchangeable 360o airflow and four-way airflow panels are available.

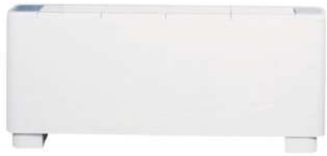
360o airflow

Four-way airflow

For Floor Standing Units, the F3B (concealed) unit is designed to be concealed in walls while the F4 (front air intake) and F5 (underside air intake) ofer a choice of air intake options

F3B (concealed)

F4 (front air intake)



F5 (underside air intake)

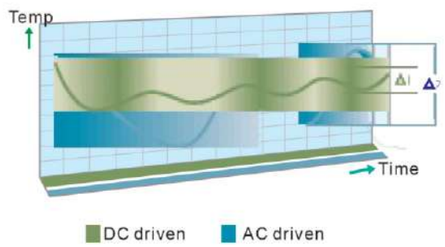
Comfort and Eiciency

High Eiciency DC Fan Motor

The power consumption of DC fan motor can be reduced greatly in comparison to corresponding AC type.

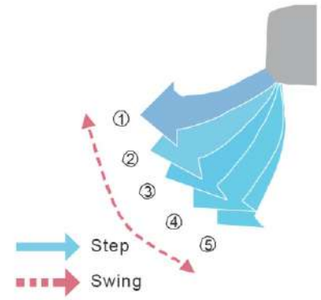
Constant Level of Indoor Air Temperature

Plate Heat Exchanger as a secondary intercooler to gain up to 18oC subcooling and improves 10% energy eiciency



5-step Swing Louver

The air is comfortably spread upwards and downwards thanks to the 5-step swing louver that can be programmed via the controller



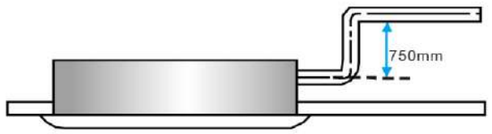
uiet Operation

The low sound operation DC fan motor and optimized fan blades guarantees the air discharge smoothly and provides a quiet living environment.


DIGITAL
BRAVIA

One-way Cassette

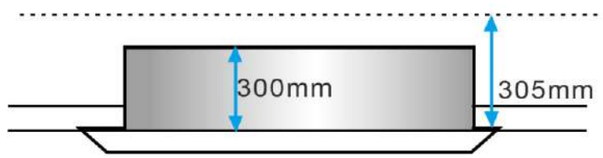
- Fresh air intake
- One-way air discharge, ideal for corner locations
- Drain pump with 750mm pump head fitted as standard



Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N18CN/2D	1.8	6.1	25	2.2	7.5	25	1054×153×425	11.8/15.3
NVF-N22CN/2D	2.2	7.5	25	2.6	8.9	25	1054×153×425	11.8/15.3
NVF-N28CN/2D	2.8	9.6	30	3.2	10.9	30	1054×153×425	12.3/15.8
NVF-N36CN/2D	3.6	12.3	30	4.0	13.6	30	1054×153×425	12.3/15.8
NVF-N45CN/2D	4.5	15.4	40	5.0	17.1	40	1275×189×450	16.1/20.4
NVF-N56CN/2D	5.6	19.1	48	6.3	21.5	48	1275×189×450	16.4/20.7
NVF-N71CN/2D	7.1	24.2	60	8.0	27.3	60	1275×189×450	17.6/22.4

Two-way Cassette

- Two-way air discharge, perfect for limited ceiling space applications
- Drain pump with 750mm pump head fitted as standard



Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22CN/2D	2.2	7.5	35	2.6	8.9	35	1172×299×591	33.5/42.0
NVF-N28CN/2D	2.8	9.6	40	3.2	10.9	40	1172×299×591	33.5/42.0
NVF-N36CN/2D	3.6	12.3	40	4.0	13.6	40	1172×299×591	33.5/42.0
NVF-N45CN/2D	4.5	15.4	50	5.0	17.1	50	1172×299×591	35/43.5
NVF-N56CN/2D	5.6	19.1	69	6.3	21.5	69	1172×299×591	35/43.5
NVF-N71CN/2D	7.1	24.2	98	8.0	27.3	98	1172×299×591	35/43.5

Compact Four-way Cassette

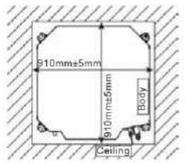
- Ffresh air intake
- 360° airflow allows for even, wide-range cooling and heating
- Drain pump with 500mm pump head fitted as standard

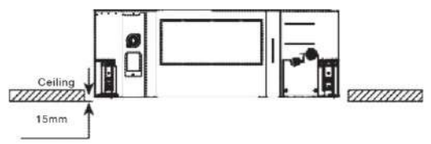
Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22CN/2D	2.2	7.5	35	2.4	8.2	35	630×260×570	18/23.5
NVF-N28CN/2D	2.8	9.6	35	3.2	10.9	35	630×260×570	18/23.5
NVF-N36CN/2D	3.6	12.3	40	4.0	13.6	40	630×260×570	19.2/24.7
NVF-N45CN/2D	4.5	15.4	50	5.0	17.1	50	630×260×570	19.2/24.7

Four-way Cassette

- Fresh air intake
- Four-way airflow, allows wide-angle, equal distribution of cooling and heating
- Drain pump with 750mm pump head fitted as standard
- Brand-new, elegant panel with four independently controlled louvers

New panel appearance



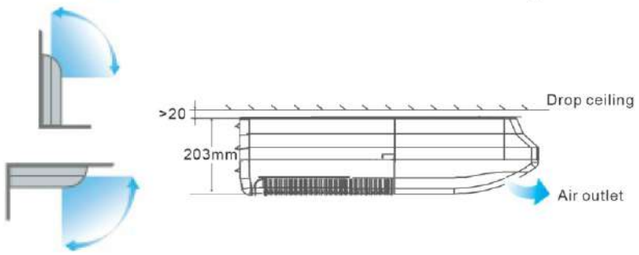


New panel installation dimensions

Model NAC-	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N28CN/2D	2.8	9.6	25	3.2	10.9	25	840×230×840	5/8
NVF-N36CN/2D	3.6	12.3	25	4.0	13.6	25	840×230×840	5/8
NVF-N45CN/2D	4.5	15.4	31	5.0	17.1	31	840×230×840	5/8
NVF-N56CN/2D	5.6	19.1	31	6.3	21.5	31	840×230×840	5/8
NVF-N71CN/2D	7.1	24.2	46	8.0	27.3	46	840×230×840	5/8
NVF-N80CN/2D	8.0	27.3	48	9.0	30.7	48	840×230×840	23.2/27.6
NVF-N90CN/2D	9.0	30.7	75	10.0	34.1	75	840×300×840	28.4/33.8
NVF-N100CN/2D	10.0	34.1	75	11.0	37.5	75	840×300×840	28.4/33.8
NVF-N112CN/2D	11.2	38.2	75	12.5	42.7	75	840×300×840	28.4/33.8
NVF-N140CN/2D	14.0	47.8	94	16.0	54.6	94	840×300×840	30.7/35.8

Ceiling / Floor

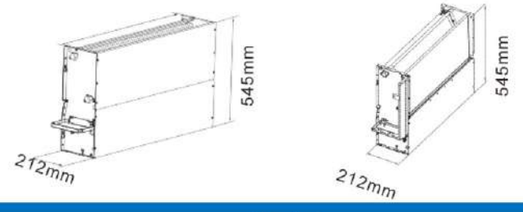
- Can be installed either on the ceiling or floor



Model	Cooling1			Heating2				
	Capacity kW	Capacity kBtu/h	Power input W	Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N36UN/2D	3.6	12.3	49	4.0	13.6	49	990×660×203	26/32
NVF-N45UN/2D	4.5	15.4	115	5.0	17.1	115	990×660×203	28/34
NVF-N56UN/2D	5.6	19.1	115	6.3	21.5	115	990×660×203	28/34
NVF-N71UN/2D	7.1	24.2	115	8.0	27.3	115	990×660×203	28/34
NVF-N80UN/2D	8.0	27.2	130	9.0	30.7	130	1280×660×203	35/41
NVF-N90UN/2D	9.0	30.7	130	10.0	34.1	130	1280×660×203	35/41
NVF-N112UN/2D	11.2	38.2	180	12.5	42.7	180	1670×680×244	48/58
NVF-N140UN/2D	14.0	47.8	180	15.0	51.2	180	1670×680×244	48/58

Floor Standing Unit (Concealed)

- Designed to be concealed in walls with only the suction and discharge grills visible



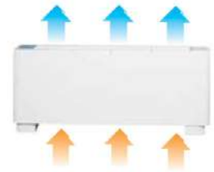
Model	Cooling1			Heating2				
	Capacity kW	Capacity kBtu/h	Power input W	Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22UN/2D	2.2	7.5	40	2.4	8.2	40	840×545×212	21/25.5
NVF-N28UN/2D	2.8	9.6	45	3.2	10.9	45	840×545×212	21/25.5
NVF-N36UN/2D	3.6	12.3	55	4.0	13.6	55	1036×639×305	25.5/30.5
NVF-N45UN/2D	4.5	15.4	60	5.0	17.1	60	1036×639×305	25.5/30.5
NVF-N56UN/2D	5.6	19.1	88	6.3	21.5	88	1340×545×212	30.5/35.5
NVF-N71UN/2D	7.1	24.2	110	8.0	27.3	110	1340×545×212	30.5/35.5
NVF-N80UN/2D	8.0	27.3	130	9.0	30.7	130	1340×545×212	32/37

F4 (front air intake)

F5 (underside air intake)

Floor Standing Unit (Exposed)

- 1The F4 (front air intake) and F5 (underside air intake) oer a choice of air intake options



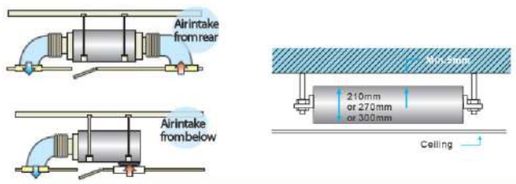
Model	Cooling1			Heating2				
	Capacity kW	Capacity kBtu/h	Power input W	Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm (f4/f5)	Net/Gross weigh Kg (f4/f5)
NVF-N22F4UN/2D NVF-N22F5UN/2D	2.2	7.5	40	2.4	8.2	40	1000×596×225 1000×677×220	28/33 28/35
NVF-N28F4UN/2D NVF-N28F5UN/2D	2.8	9.6	45	3.2	10.9	45	1000×596×225 1000×677×220	28/33 28/35
NVF-N36F4UN/2D NVF-N36F5UN/2D	3.6	12.3	55	4.0	13.6	55	1200×596×225 1200×677×220	33/38.6 33/40.7
NVF-N45F4UN/2D NVF-N45F5UN/2D	4.5	15.4	60	5.0	17.1	60	1200×596×225 1200×677×220	33/38.6 33/40.7
NVF-N56F4UN/2D NVF-N56F5UN/2D	5.6	19.1	88	6.3	21.5	88	1500×596×225 1500×677×220	40/46 40.4/48.6
NVF-N71F4UN/2D NVF-N71F5UN/2D	7.1	24.2	110	8.0	27.3	110	1500×596×225 1500×677×220	40/46 40.4/48.6
NVF-N80F4UN/2D NVF-N80F5UN/2D	8.0	27.3	130	9.0	30.7	130	1500×596×225 1500×677×220	41.5/47.5 41.5/49.5

Console

- Combination of four air inlets and two air outlets ensures that cooling and heating are distributed in all directions.

Sound levels as low as 26dB(A)

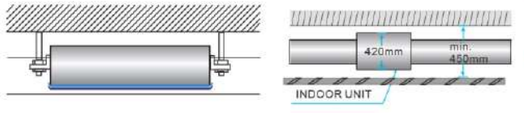
Model	Cooling1			Heating2				
	Capacity kW	Capacity kBtu/h	Power input W	Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22UN/2D	2.2	7.5	20	2.6	8.9	20	700×600×210	14/19
NVF-N28UN/2D	2.8	9.6	25	3.2	10.9	25	700×600×210	15/20
NVF-N36UN/2D	3.6	12.3	25	4.0	13.4	25	700×600×210	15/20
NVF-N45UN/2D	4.5	15.4	35	5.0	17.1	35	700×600×210	15/20



Medium Static Pressure Duct

- Fresh air intake
- 6-step static pressure control on 2.2kW to 7.1kW models and 10-step static pressure control on 8kW to 14kW units (requires latest generation wired controllers)
- Drain pump with 750mm pump head fitted as standard
- Flexible installation for the air inlet may be positioned either on the underside or the rear of the unit

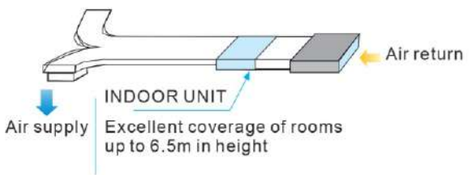
Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22T2N/2D	2.2	7.5	40	2.6	8.2	40	780×210×500	18/21
NVF-N28T2N/2D	2.8	9.6	40	3.2	10.9	40	780×210×500	18/21
NVF-N36T2N/2D	3.6	12.3	45	4.0	13.6	45	780×210×500	18/21
NVF-N45T2N/2D	4.5	15.4	92	5.0	17.1	92	1000×210×500	21.5/25
NVF-N56T2N/2D	5.6	19.1	92	6.3	21.5	92	1000×210×500	21.5/25
NVF-N71T2N/2D	7.1	24.2	98	8.0	27.3	98	1220×210×500	27.5/31.5
NVF-N80T2N/2D	8.0	27.3	110	9.0	30.7	110	1230×270×775	36.5/44.5
NVF-N90T2N/2D	9.0	30.7	120	10.0	34.1	120	1230×270×775	37/45
NVF-N112T2N/2D	11.2	38.2	200	12.5	42.7	200	1230×270×775	37/45
NVF-N140T2N/2D	14.0	47.8	250	15.5	52.9	250	1290×300×865	46.5/55.5



High Static Pressure Duct

- External static pressure up to 400Pa facilitates extensive duct and grille network
- 20-step static pressure control on all models (requires latest generation wired controllers)
- A double-skin drainage pan provides double protection for ceilings (models 71 to 160).
- Drain pump with a 750mm pump head available as a customization option

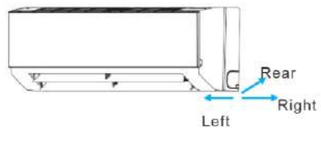
Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N71T1N/2D	7.1	24.2	180	8.0	27.3	180	952×420×690	41/47
NVF-N80T1N/2D	8.1	27.3	180	9.0	30.7	180	952×420×690	41/47
NVF-N90T1N/2D	9.0	30.7	220	10.0	34.1	220	952×420×690	51/57
NVF-N112T1N/2D	11.2	38.2	380	12.5	42.7	380	952×420×690	51/57
NVF-N140T1N/2D	14.2	47.8	420	16.0	54.6	420	1300×420×690	63/70
NVF-N160T1N/2D	16.0	54.6	700	17.0	58.0	700	1300×420×690	63/70
NVF-N200T1N/2D	20.0	68.2	990	22.5	76.8	990	1440×505×925	130/142
NVF-N250T1N/2D	25.0	85.3	1200	26.0	88.7	1200	1440×505×925	130/142
NVF-N280T1N/2D	28.0	95.5	1200	31.5	107.5	1200	1440×505×925	130/142



Fresh Air Processing Unit

- 100% fresh air processing unit, both fresh air filtration and heating/cooling can be achieved in a single system
- External static pressure up to 400Pa facilitates extensive duct and grille network
- 20-step static pressure control on all models (requires latest generation wired controllers)
- Drain pump with a 750mm pump head available as a customization option

Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N125XN/2D	12.5	42.6	370	10.5	36.0	370	1300×420×690	63/70
NVF-N140XN/2D	14.0	47.8	370	12.0	41.0	370	1300×420×690	63/70
NVF-N200XN/2D	20.0	68.2	615	18.0	61.4	615	1450×505×925	130/142
NVF-N250XN/2D	25.0	85.3	670	20.0	68.2	670	1450×505×925	130/142
NVF-N280XN/2D	28.0	95.5	670	22.0	75.0	670	1450×505×925	130/142



Wall Mounted Unit

- Three interchangeable panels allow units to blend easily with any interior decoration, perfect for rooms with no false ceilings or free floor space
- Refrigerant outlet direction can be left, right or rear as the installation situation requires

Model	Cooling1 Capacity kW	Capacity kBtu/h	Power input W	Heating2 Capacity kW	Capacity kBtu/h	Power input W	Net (WxHxD) mm	Net/Gross weigh Kg
NVF-N22WN/2D	2.2	7.5	28	2.4	8.2	28	835×280×203	8.4/12.1
NVF-N28WN/2D	2.8	9.6	28	3.2	10.9	28	835×280×203	9.5/13.1
NVF-N36WN/2D	3.6	12.3	30	4.0	13.6	30	990×315×223	11.4/15.5
NVF-N45WN/2D	4.5	15.4	40	5.0	17.1	40	990×315×223	12.8/16.9
NVF-N56WN/2D	5.6	19.1	45	6.3	21.5	45	990×315×223	12.8/16.9
NVF-N71WN/2D	7.1	24.2	55	8.0	27.3	55	1194×343×262	17.0/22.4
NVF-N80WN/2D	8.0	27.3	55	9.0	30.7	55	1194×343×262	17.0/22.4
NVF-N90WN/2D	9.0	30.7	82	10.0	34.1	82	1194×343×262	17.0/22.4

Indoor Units
VRF V4 Plus indoor unit

Fresh Air Processing Unit
100% fresh air supply

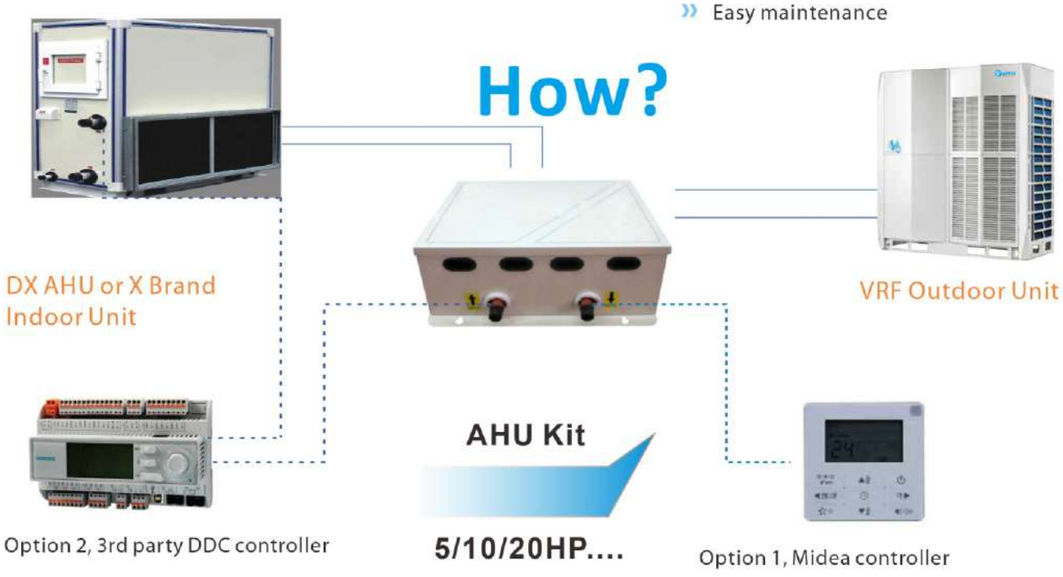
Ventilationl
Heat recovery ventilator(HRV)

AHU Connection Kit
Connect to other brand AHU

VRF + DX AHU

DX AHU connect to VRF outdoor unit

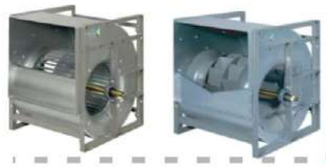
- DC inverter compressors
- Capacity up to 36HP
- Connectable indoor units quantity up to 59
- Cycle duty operation
- Backup operation
- Precise oil control technology
- Low noise operation
- Simple communication wiring
- Easy maintenance



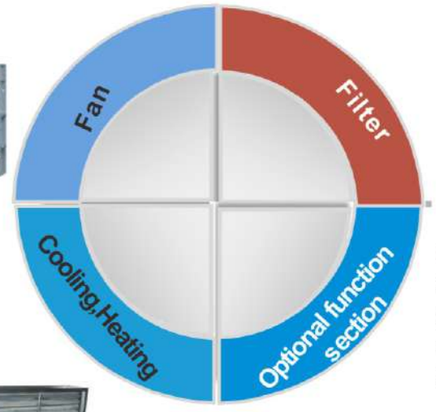
- DX = Direct expansion
- AHU kit help to setup the connection between Midea VRF outdoor unit and DX AHU
- 2 options of control methods, Midea controller or 3rd party AHU DDC controller

Various Function Sections

Forward fan
Backward fan
Air Foil fan



Primary filter
Secondary filter
Sub-Hepa filter
Hepa filter

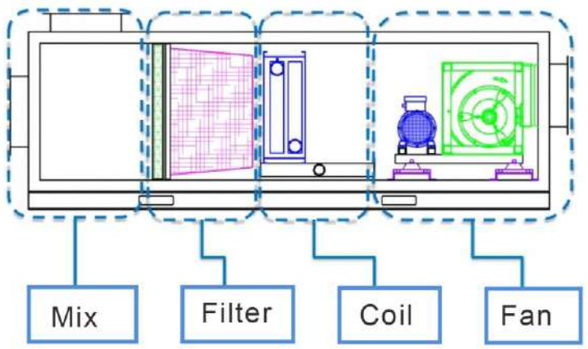


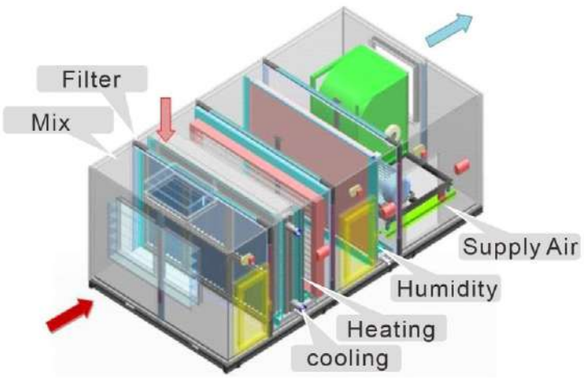
Cold water coil
Hot water coil
Steam coil
Electric heater

Mixing section
Air inlet section
Maintenance section
Purification section
Air outlet section

Humidifying section
Heat recovery sectio
Silencer
Distribution section
Diffuser section

Common Combination





Commercial

047 Large split

059 Rooftop

067 Air Cooled Chiller

077 Air Handling Unit

083 Fan coil

091 Water Source Heat Pump

095 Precision Air Conditioner

Large Split

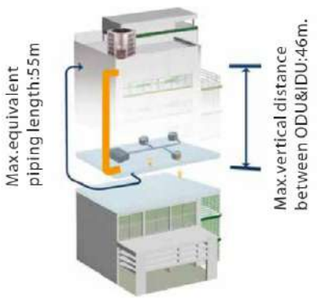
Monster

Application	R410A T1(Heat Pump)	R410A T1(DC Inverter) (Heat Pump)	R410A T3 (Cooling Only)	R410A T3(Heat Pump)
Nominal Cooling Capacity	76KBtu/h - 192KBtu/h	76KBtu/h - 96KBtu/h	76KBtu/h - 150KBtu/h	76KBtu/h - 120KBtu/h

Long piping length

Max. equivalent piping length is 50m. The outdoor unit can be installed at any ventilation locations..

		Permitted value
Max. Equivalent piping length		50m
Max. height drop between indoor and outdoor unit	Outdoor unit up	25m
	Outdoor unit down	30m



Anti-corrosion treatment as optional

The large split air conditioners with special anti-corrosion treatment are suitable for seaside areas or the areas exposed to acidic substances.

Special anti-corrosion treatment of heat exchanger provides 5 to 6 times greater resistance against acid rain and salt corrosion

All PCB parts in the unit are coated with double-side moisture proof paint. The outer side of electric box metal cover is spray-painted.

All screws are anti-rust.

Casings of the unit and motors are anti-rust.

DX AHU Series

Flange of air ow is standard.

Dual drainage spouts for versatile

Multiple airow design: Vertical up-ow, down-ow, Horizontal left-ow horizontal

scroll power

Puron

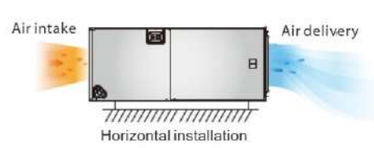
Tropical(T3) application

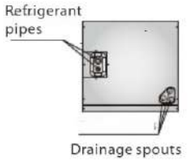
DX AHU - Indoor unit

Model	Capacity(T1/T3) Btu/h	Capacity(T1) KW	SEER(T1)	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCG-24CN/I	24000/20400	7. 0	13	460x1050x520	600x633x600	50/60	59/62
NCG-36CN/I	36000/30400	10. 4	13	500x1180x550	710x759x710	64/70	81/85
NCG-48CN/I	48000/40500	14. 0	13	560x1385x610	710x843x710	78/85	89/93
NCG-60CN/I	58000/49000	17. 0	13	560x1385x610	740x843x740	78/85	98/102

Flexible installation

- Flange of air ow is standard.
- Dual drainage spouts for versatile installation.
- Multiple airow design: Vertical up-ow, Vertical down-ow, Horizontal left-ow and horizontal right-ow.





Washable filter as standard

Conventional Split

Flange of air ow is standard.
Dual drainage spouts for versatile
Multiple airow design: Vertical up-ow,
down-ow, Horizontal left-ow horizontal

Conventional Split

Famous brand compressor: Hitachi,
Danfoss, etc. More reliable.
No complex internal suction and discharge
operation and higher reliability.
Compact, light-weight design, and fewer

T1 Application

Medium static pressure duct heat pump

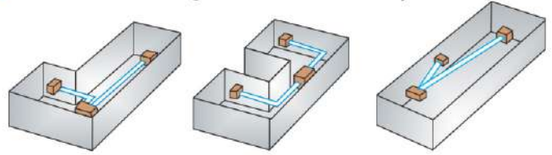
Model	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	76000	22.3	85300	25.0	1452x462x797	1260x908x700	94/106	174/193
NCH-120HCN/I	120000	35.0	129700	38.0	1452x462x797	1260x908x700	97/109	201/217

Convenient installation

- Compact design. Concealed installation without oor space requirement.
- Hidden in the ceiling, unit installation is not hindered by the location of lighting xtures or room structure.
- Air inlet & outlet ange are standard for easy duct connection.
- Easy maintenance through the inspection port.

Free air duct design

- Multi diusers from one indoor unit, air-conditioned multi rooms at the same time.
- Three speeds of air supply can be chosen via controller.
- The indoor unit is suitable for various applications where there are many rooms or halls, such as restaurant, concert halls and hotels.
- Flexible duct design for dierent room styles



Auto Restart Function
Auto Defrosting
Independent Dehumidification
Time
PTC Heater
Anti-cold Air Function
Wired Controller

T1 Application

High static pressure duct heat pump

Model	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-150HCN/I	150100	44.0	160300	47.0	1988X669X906	1250X1615X765	208/220	288/308
NCH-192HCN/I	192000	56.3	200000	58.6	1988X669X906	1250X1615X766	215X230	320/336
NCH-76HCN/I	76000	22.3	85300	25.0	1452x462x797	1260x908x700	94/106	174/193

Durable construction

- Units are completely assembled, internally wired, charged outdoor unit with refrigerant at the factory.
- Weather-resistant construction with capped steams and sloped top panels.
- G90 galvanized heavy gauge plate conforming to ASTM-A-653.

Reliable scroll compressor

- Famous brand compressor: Hitachi,
- Danfoss, etc. More reliable.
- No complex internal suction and discharge valves for quieter operation and higher reliability.
- Compact, light-weight design, and fewer moving parts design.

Conventional Split

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

scroll power Puron

T1 Application

DC inverter high static pressure duct heat pump

Model NAC-	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-V76HCN/I	85300	25.0	85300	25.0	1470X510X795	948X1585X968	83/94	231/242
NCH-V96HCN/I	102300	30.0	102300	30.0	1470X510X795	948X1585X968	83/92	231/256
NCH-V96HCN/I(A)	95500	28.0	107000	31.5	1470X512X775	1120X1558X528	83/92	148/164

Multi-protection design

- Multi-measurement to ensure units operate normally and reliably: System current protection, High/low pressure switch protection, Temperature sensor on/off protection, etc.
- Three-phase protector is optional.

Reliable scroll compressor

- Famous brand compressor: Hitachi,
- Danfoss, etc. More reliable.
- No complex internal suction and discharge valves for quieter operation and higher reliability.
- Compact, light-weight design, and fewer moving parts design.

HP/LP switch

Temperature sensor

Conventional Split

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.
Compact, light-weight design, and fewer

scroll power Puron

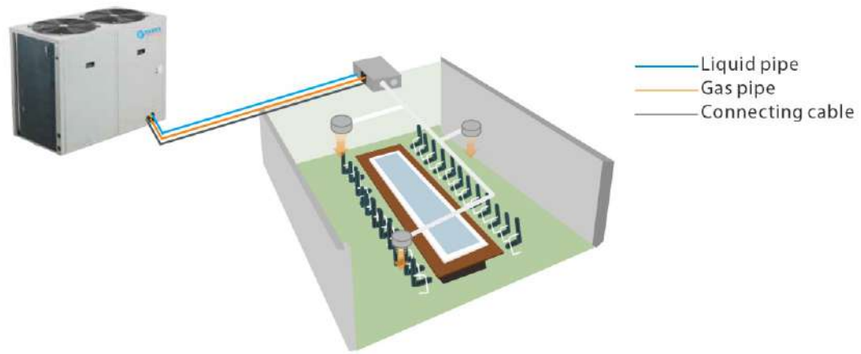
Tropical (T3) Application

Medium static pressure duct, heat pump

Model NAC-	Cooling Capacity(T1/T3) Btu/h	Cooling Capacity(T1/T3) KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	75100/64100	22.0/18.8	85000	25.0	1443X450X846	1260X908X700	105/120	174/193
NCH-96HCN/I	96000/87860	28.1/25.75	106000	31.1	1452X462X797	1312X919X658	188/220	177/192
NCH-120HCN/I	119400/102400	35.0/30.0	130000	38.0	1988X669X906	1260X908X700	188/220	201/217

Easy for installation

- Units are completely assembled, internally wired, charged outdoor unit with refrigerant at the factory.
The site work only needs to connect refrigerant pipes and communication wires between outdoor unit and indoor unit.



Conventional Split

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.

No complex internal suction and discharge operation and higher reliability.

Compact, light-weight design, and fewer

scroll power Puron

Conventional Split

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.

No complex internal suction and dischar

operation and higher reliability.

Compact, light-weight design, and fewe

scroll power Puron

Tropical (T3) Application

Medium static pressure duct, cooling only

Model NAC-	Cooling Capacity(T1/T3) Btu/h	Cooling Capacity(T1/T3) KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	75100/64100	22.0/18.8	1443X450X846	1260X908X700	105/120	171/190
NCH-96HCN/I	96000/87860	28.1/25.75	1452X462X797	1312X919X658	97/109	168/183
NCH-120HCN/I	119400/102400	35.0/30.0	1988X669X906	1260X908X700	188/220	199/215
NCH-150HCN/I	150100/130300	44.0/38.2	1988X669X906	-------	188/200	------

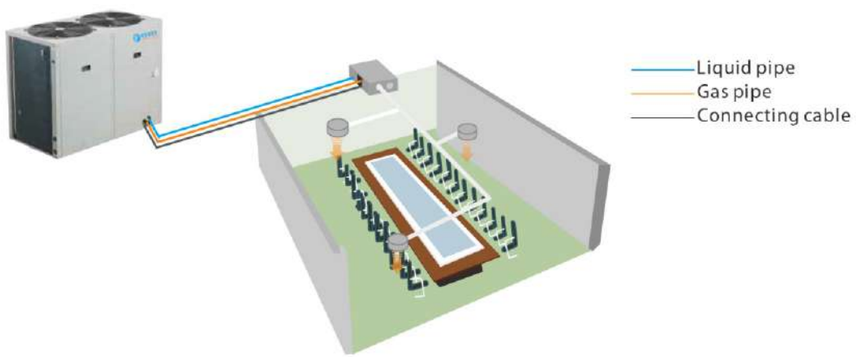
Tropical (T3) Application

High static pressure duct, heat pump&cooling only

Model NAC-	Cooling Capacity(T1/T3) Btu/h	Cooling Capacity(T1/T3) KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	75100/64100	22.0/18.8	85000	25.0	1443X450X846	1260X908X700	105/120	174/193
NCH-96HCN/I	96000/87860	28.1/25.75	106000	31.1	1452X462X797	1312X919X658	97/109	177/192
NCH-76CN/I	75100/64100	22.0/18.8	-	-	1443X450X846	1260X908X700	105/120	201/217
NCH-96CN/I	96000/87860	28.1/25.75	-	-	1452X462X797	1312X919X658	97/109	168/183

Easy for installation

- Units are completely assembled, internally wired, charged outdoor unit with refrigerant at the factory.
  The site work only needs to connect refrigerant pipes and communication wires between outdoor unit and indoor unit.



Controllers

- Wireless remote controller is available for conventional split A/C series.
- Wired controller can be directly connected with duct & floor-standing indoor unts.

Floor-standing Indoor Unit

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Conventional Split

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

T1 Application Heat pump

Model NAC-	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) indoor unit	Net(WxHxD) outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	76000	22.3	85300	25.0	1200X1860X518	1260X908X700	130/145	174/193

Tropical(T3) Application Heat pump

Model NAC-	Cooling Capacity(T1/T3) Btu/h	Cooling Capacity(T1/T3) KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76HCN/I	75100/64800	22.0/19.0	85000	25.0	1200X1860X518	1260X908X700	158/174	174/193
NCH-96HCN/I	96000/87860	28.1/25.75	106000	31.0	1200X1860X518	1312X919X658	140/154	177/192

Tropical(T3) Application Cooling only

Model NAC-	Cooling Capacity(T1/T3) Btu/h	Cooling Capacity(T1/T3) KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm indoor unit	Net(WxHxD) mm outdoor unit	Net/Gross weight (Kg) indoor unit	Net/Gross weight (Kg) outdoor unit
NCH-76CN/I	75100/64800	22.0/19.0	-	-	1200X1860X518	1260X908X700	158/174	171/190
NCH-96CN/I	96000/87860	28.1/25.75	-	-	1200X1860X518	1312X919X658	140/154	168/183
NCH-120CN/I	121000/110900	35.0/32.5	-	-	1200X1860X518	1260X908X700	148/174	199/215

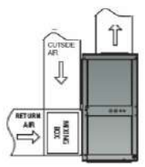
T1 Application

Model NAC-	Cooling Capacity Btu/h	Cooling Capacity KW	Net(WxHxD)mm indoor unit	Net/Gross weight (Kg) indoor unit
NCH-90CN/2I	88700	26.0	44-7/8×28-3/8×57-1/8 [1,139×721×1,450]	375 / 443 [170 / 201]
NCH-120CN/2I	119400	35.0	44-7/8×28-3/8×57-1/8 [1,139×721×1,450]	375 / 443 [170 / 201]

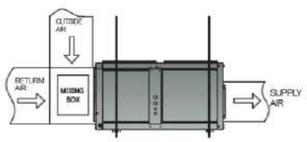
Variable speed pulley design, ESP can be adjusted

- Changing the speed of a rotating shaft member, the revolutions per minute of particular shaft can be increased or decreased. At the same time, the indoor air volume can be adjusted.
- The external static pressure can be adjusted up to 200Pa.

Flexible installation



Vertical(Standard)



Horizontal(Optional)

Washable filter as standard

Metal filter,grade G3.

DC Inverter Multi Series Air Conditioner

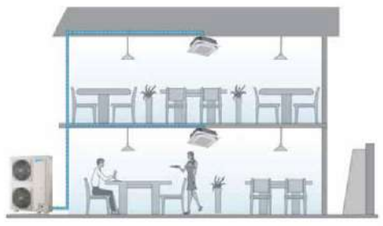
Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Specifications

Model	Cooling Capacity kW	Cooling Input power KW	EER W/W	Heating Capacity kW	Heating Input power KW	COP W/W	Airflow m^3/h	Net (WxHxD) mm	Net weigh Kg
NCH-V96HCN/I	26	12.21	2.13	30	10.00	3.00	4400 (100Pa)	1366×450×704	85
NCH-V96HCN/I	26	11.71	2.22	30	10.20	2.94	4600 (100Pa)	1366×450×704	90
NCH-V96HCN/I-R	28	11.34	2.47	30	10.00	3.00	4500.00	1200×1860×420	137
NCH-V48HCN/I	26	11.71	2.22	27	10.42	2.64	1800 x 2	840×300×840	29.2

A long-pipe high-drop design allows exible installation and optimizes space

A long-pipe high-drop design allows users to exibly select the installation location, optimizing the use of space



Maximum pipe length 70m

Maximum level dierence between IDU and ODU 30m

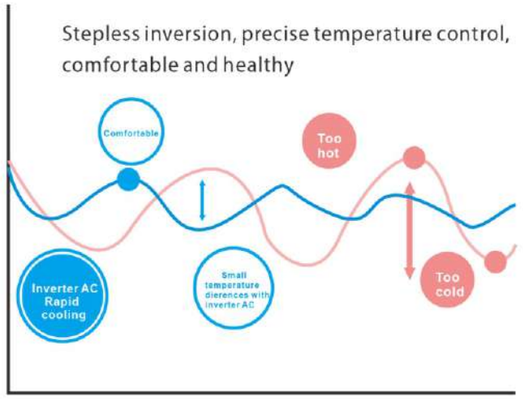
New specification-universal unit

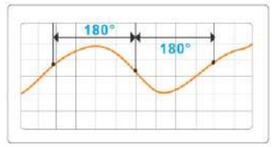
Exactly Same Outdoor Units Can Be Used in Different Application Scenarios

One Drive Two

DC inverter technology, precise temperature control

The DC inverter compressor system reaches full load rapidly providing less temperature uctuation and improved living environment.





DC inverter technology
New generation 180° sine wave drive technology,higher energy eciency

Compressor seamless inverter main board
Wider inverter range control

High-precision EXVs
Each EXV part achieves 480 pulse rate to precisely adjust refrigerant ow

High-precision temperature sensor
It can react to temperature uctuations with a precision of 0.5°C.

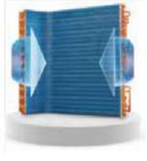
New specification-universal unit

High Functionality Motor

Refrigerant Cooling PCB

Quiet Fan Blades

High-efficiency DC Inverter Compressor



L-shaped High Efficiency Heat Exchanger

480 Step High Precision EXV

Newly-designed Air Guide Ring and Outlet Grille

High-precision Temperature Sensor

Rooftop

Greator

Series	Application	Function	Cooling capactity range
R410A ClimaCreator series	T1	Heating pump	7.5RT-25RT
	Tropical(T3)	Cooling only	4RT-30RT
R410A ClimaMaster series	T1	Heating pump	3RT-5RT
	Tropical(T3)	Cooling only	6.2RT-30RT
R410A Desert series	Tropical(T3)	Cooling only	5RT-25RT

Centralized controllers

- Centralized control function. It is a multifunctional device which is able to control up to 64 units.
- It provides a superior way to manage the units. Users are able to make their own choice from locking wired controller, running mode or the CCM30's keyboard.

CCM30

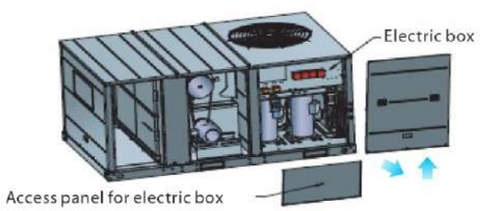
MD-NIM01

Wired controllers

- t is easy and convenient to select cooling, heating and fan operation mode.
- Digital display, seting temperature in 1°C.
- Controller with Follow Me function, it helps making the room environment comfortable.
- Daily timer function.

Easy access doors desig

- Removable the access doors on the filter, fan motor, and electric box sections.
- Provide convenient access to system components for mainenance and service.



Clima Creator Series

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

T1 application,380-415V 3Ph~50Hz

Model	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm	Net/Gross weight (kg)
NCR-62HCN/SI	75,000	22.0	89,000	26.0	1475X840X1130	229/234
NCR-75HCN/SI	89,000	26.0	103,000	30.0	1475X840X1130	325/335
NCR-85HCN/SI	103,000	30.0	120,000	35.0	1483X1138X1231	340/350
NCR-100HCN/SI	120,000	35.0	137,000	40.0	1483X1138X1231	343/354
NCR-125HCN/SI	150,000	44.0	154,000	45.0	1965X1230X1130	451/471
NCR-150HCN/SI	180,000	53.0	191,000	56.0	1965X1230X1130	492/512
NCR-175HCN/SI	208,000	61.0	218,000	64.0	1670X1247X2192	615/645
NCR-200HCN/SI	240,000	70.0	260,000	76.2	1670X1247X2192	690/720
NCR-250HCN/SI	300,000	88.0	330,000	97.0	2320X1245X2220	940/970
NCR-300HCN/SI	335,000	98.0	380,000	111.5	2320X1245X2220	955/985

Design flexibility

- Compact design.
- Flanges of air flow inlet and outlet as standard.
- It is suitable for installation in rooftop and ground.

ClimaCreator series

ClimaCreator Series

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

ClimaMaster Series

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Tropical(T3) application,380-415V 3Ph~50Hz

Model	Cooling Capacity(1) Btu/h	Cooling Capacity(1) KW	Cooling Capacity(2) Btu/h	Cooling Capacity(2) KW	Net(WxHxD) mm	Net/Gross weight (Kg)
NCR-48HCN/SI	48,000	14.1	39,000	11.4	1310X840X900	167/170
NCR-60HCN/SI	58,000	17.0	47,900	14.0	1310X840X900	180/183
NCR-62HCN/SI	75,000	22.0	61,400	18.0	1475X840X1130	223/228
NCR-75HCN/SI	89,000	26.0	69,600	20.4	1475X840X1130	231/236
NCR-85HCN/SI	102,000	30.0	80,700	23.7	1483X1231X1138	331/342
NCR-85HCN/SI(D)	102,000	30.0	80,700	23.7	1483X1231X1138	302/313
NCR-100HCN/SI	120,000	35.0	100,200	29.4	1483X1231X1138	335/346
NCR-100HCN/SI(D)	120,000	35.0	100,200	29.4	1483X1231X1138	323/335
NCR-125HCN/SI	150,000	44.0	125,400	36.8	1965X1230X1130	433/453
NCR-150HCN/SI	180,000	53.0	146,000	42.8	1965X1230X1130	470/490
NCR-175HCN/SI	208,000	61.0	181,100	53.1	1670X1247X2192	590/620
NCR-200HCN/SI	240,000	70.0	199,200	58.4	1670X1247X2192	670/700
NCR-250HCN/SI	300,000	87.0	251,700	73.8	2320X1245X2220	895/925
NCR-300HCN/SI	360,000	105.0	336,300	98.6	2320X1245X2220	910/940

Air intake filter & EHK as optional

- Three thickness filter: 0.5inch, 1inch and 2inch;
- Two kinds of filter materials: Metal or Nylon + Metal frame.
- EHK (Electric Heater Kits) and control box can be customized.

T1 application,heat pump,380-415V 3Ph~50Hz

Model	Cooling Capacity Btu/h	Cooling Capacity KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm	Net/Gross weight (Kg)
NCR-36HCN/SI	36,000	10.55	37,500	10.99	1116X830X744	139/142
NCR-48HCN/SI	48,000	14.07	51,500	15.09	1116X830X744	146/149
NCR-60HCN/SI	58,000	17.29	62,500	18.32	1116X830X744	159/162

Design flexibility

- Compact design.
- Flanges of air flow inlet and outlet as standard.
- It is suitable for installation in rooftop and ground.

ClimaMaster series

System self-diagnostic

- Press the 'Check' button, the LED display in PCB board of the unit will dislay the normal checking code.
- If the unit is in running with abnormal operation, the LED display will show the error code.

Reliable scroll compressor

- Famous brand compressor: Copeland, Hitachi, Danfoss,etc. More reliable.
- No complex internal suction and discharge valves for quieter operation and higher reliability.
- Compact, light-weight design, and fewer moving parts design.

ClimaMaster Series

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Tropical(T3) application,heat pump,380-415V 3Ph~50Hz

Model	Cooling Capacity(1) Btu/h	Cooling Capacity(1) KW	Cooling Capacity(2) Btu/h	Cooling Capacity(2) KW	Heating Capacity Btu/h	Heating Capacity KW	Net(WxHxD) mm	Net/Gross weight (Kg)
NCR-62HCN/SI	75,000	22.0	62,700	18.4	89,000	26.0	1630X1068X1065	320/340
NCR-75HCN/SI	89,000	26.0	74,500	21.8	102,000	30.0	1630X1068X1065	320/340
NCR-85HCN/SI	103,000	30.0	85,600	25.1	120,000	35.0	2165X1002X1335	450/463
NCR-100HCN/SI	120,000	35.0	100,000	29.3	126,000	37.0	2165X1002X1335	450/463
NCR-125HCN/SI	150,000	43.0	125,600	34.2	167,000	49.0	2230X1245X1400	550/565
NCR-150HCN/SI	180,000	53.0	159,600	46.7	191,000	56.0	2229X1245X1825	730/750
NCR-175HCN/SI	210,000	60.0	180,600	52.9	229,000	67.0	2229X1245X1825	750/770
NCR-200HCN/SI	240,000	70.0	213,000	62.4	256,000	75.0	2753X1245X2157	940/955
NCR-300HCN/SI	385,300	105.0	328,600	96.0	358,000	105.0	2753X1245X2157	1130/1150

Multi-protection design

- Multi-measurement to ensure units operate normally and reliably:
- System current protection, High/low pressure switch protection, Temperature sensor on/off protection, etc.
- Three-phase protector can be customized.

HP/LP switch

Temperature sensor

Desert series

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Tropical (T3) application, 380-415V-3Ph~60Hz

Model NAC-	Cooling(1) Capacity Btu/h	Cooling(1) Capacity KW	Cooling(2) Capacity Btu/h	Cooling(2) Capacity KW	Net(WxHxD) mm	Net/Gross weight (Kg)
NCR-50HCN/4I	58,500	17.1	51,000	14.9	1,920×840×1,070	230 / 234
NCR-62HCN/4I	75,000	22.0	64,000	18.8	1,965×1,230×1,130	360 / 390
NCR-100HCN/4I	124,000	36.3	107,000	31.4	2,230×1,255×1,965	615 / 650
NCR-125HCN/4I	156,000	45.7	134,000	39.3	2,230×1,255×1,965	660 / 695
NCR-250HCN/4I	282,000	82.6	248,000	72.7	2,885×1,655×2,230	1,180 / 1,260

Design exibility

- Compact design.
- Flanges of air ow inlet and outlet as standard.
- It is suitable for installation in rooftop and ground

Desert series

Multi-protection design

- Multi-measurement to ensure units operate normally and reliably:
- System current protection, High/low pressure switch protection, Temperature sensor on/off protection, etc.
- Three-phase protector can be customized.

HP/LP switch

Temperature sensor

Roofto Large capacity

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

AHU rooftop

Famous brand compressor: Hitachi, Danfoss, etc. More reliable.
No complex internal suction and discharge operation and higher reliability.Compact, light-weight design, and fewer

Packaged Rooftop Airconditioning Unit technical paramaters

Cooling capacity(tons)	Cooling capacity(kW)	Heating capacity(kW)	Dimension (LxWxH)mm	Weight (kg)
18	62.3	65.6	3450x1800x1450	1285
19	66.1	69.6	3450x1800x1450	1310
20	68.6	72.2	3450x1800x1450	1400
25	87.5	92.1	4775x1800x1700	1735
28.5	99.5	104.8	4775x1800x1700	1820
32.5	114.8	120.9	4650x1800x2230	2265
35	123.9	130.5	4650x1800x2230	2340
37.5	131.1	140.2	4650x1800x2230	2420
41	143.8	151.4	4650x1800x2230	2510
49	171.3	180.4	6000x2250x2340	3245
51.5	180.2	189.8	6000x2250x2340	3380
54	189.8	199.9	6000x2250x2340	3520
57	199.1	209.7	6000x2250x2340	3590

Product Feature:

- Function: Cooling, Heating, Electric hearting, Fresh Air, DC inverter,Gas Burnt
- Refrigerant:R22,R407c,R410a
- Adopt famous brand hermetic srcroll compressor
- Flexible installation.It can be installed on the roof or outdoor space
- Famous brand fan motor.
- The unit uses advanced microcomputer control system and advanced thorough security system to ensure the efficient operation of the unit all the year round

Specifications

Model	Cooling KW	Heating KW	Air volume m3/h	Optional function: Ecomomizer	Heat recovery	Electric heater	Hot water coil	Explosion Proof	Gas Burner	Humidification (kg/h)
NCR-84HCN/S(4)	84	56	16800	O	O	O	O	O	O	13
NCR-100HCN/S(4)	100	56	19200	O	O	O	O	O	O	23
NCR-112HCN/S(4)	112	64	20600	O	O	O	O	O	O	23
NCR-140HCN/S(4)	140	64	25000	O	O	O	O	O	O	42
NCR-168HCN/S(4)	168	85	28000	O	O	O	O	O	O	42
NCR-200HCN/S(4)	200	85	33000	O	O	O	O	O	O	42
NCR-235HCN/S(4)	235	100	40000	O	O	O	O	O	O	80
NCR-268HCN/S(4)	268	100	45000	O	O	O	O	O	O	80

Heat Recove

Improvement of indoor air quality is one of the major missions of air conditioner equipment. To introduce the ambient fresh air into the building is an ecological and effective solution which is mandatory to control indoor CO2 level and comfort.

Economizer and free cooling

It is one of the most important features of this rooftop as it maximzes seasonal efficiency by reducing the use of thermodynamic cooling in mid season.

Heating possibilities

The electric heater comprises of shielded resistance heaters, which are smooth stainless steel tubes 6 W/cm2 capacity.

NEWEX

Air-cooled Scroll Chiller Aqua Tempo Super Series

Chilled water temp. 5~17°C Hot water temp.45~50°C

High efficiency fan motor

IP 54 fan motor together with large air volume fan, contribute to lower noise and higher efficiency.

360°condenser coil

360° air intake, increase the heat exchanging area. Compact unit design, less footprint.

Helical baffle evaporator

Shell-tube heat exchanger, helical baffle design to avoid the rectangular place of water deadzone, greatly improve the heat exchange efficiency by 10%.contribute to lower noise and higher efficiency.

High efficiency scroll compressor

The "Non-touch and non-wear" scroll compressor reduces inner friction and improves operating efficiency.
A sound-proof housing effectively reduces the noise level to 10%.

Flexible capacity combination

Modular design to any capacity required.
Start up one by one, less rush to power supply

Alternative cycle duty operation

Alternative cycle duty function, longer lifespan.

User friendly wired controller

The wired controller provides the timing startup function, simple and reliable operation.

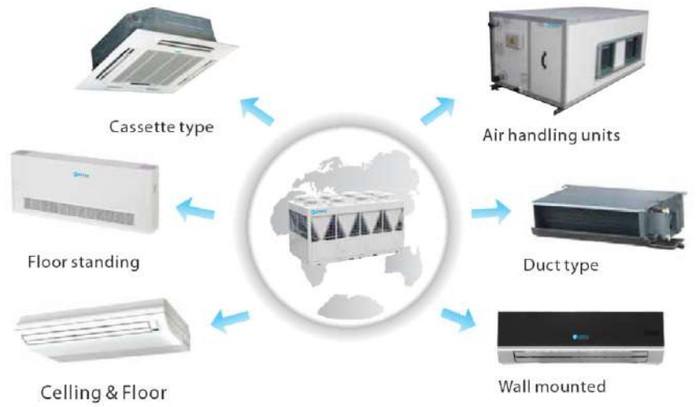
Air Cooled Chiller

Series	Type	Capacity (KW)	Power supply
Aqua Mini Chiller	DC Inverter	5/7/10/12/14/16/18	220-240/1/50 380-415/ 3/50 208-230/1/60
Aqua Tempo Super II	DC Inverter	27/55	380-415/3/50
Aqua Tempo Power	Fixed	30/65/130/200/250	380-415/3/50
	Digital	30/65	380-415/3/50
Aqua Tempo Super	Fixed	25/35/65/80/130	380-415/3/50

Wide application range

19 basic models with cooling capacity ranging from 30kW to 250kW, combination model's maximum capacity ups to 2000kW

Freely combine with fan coil units and air handling units. Project owners may choose the best types according to their design taste (for interior) or functional needs



Aqua Mini Chiller

DC Inverter Air-cooled Mini Chiller has unitary structure design and hydraulic module is built in the outdoor unit. It is air-cooled water heat pump chiller so there is no need of cooling water tower at the condensing side.

Model	Cooling1 Capacity kW	Input power KW	EER	Heating2 Capacity kW	Input power KW	COP	Net (WxHxD) mm	Net/Gross weigh Kg
NCC-V5HCN/I	5.0(1.9-5.8)	1.55	3.23	6.2(2.1-7.0)	1.90	3.26	990×966×354	81/91
NCC-V7HCN/I	7.0(2.1-7.8)	2.26	3.10	8.0(2.3-9.0)	2.54	3.15	990×966×354	81/91
NCC-V10HCN/I	10.0(2.9-10.5)	3.03	3.30	11.0(3.2-12.0)	3.24	3.40	970×1327×400	110/121
NCC-V12HCN/I	11.2(3.1-12.0)	3.50	3.20	12.3(3.3-13.2)	3.78	3.25	970×1327×400	110/121
NCC-V12HCN/SI	11.2(3.1-12.0)	3.38	3.31	12.3(3.3-13.2)	3.72	3.31	970×1327×400	110/121
NCC-V14HCN/SI	12.5(3.3-14.0)	3.91	3.20	13.8(3.5-15.4)	4.25	3.25	970×1327×400	111/122
NCC-V16HCN/SI	14.5(3.5-15.5)	4.68	3.10	16.0(3.7-17.0)	4.85	3.30	970×1327×400	111/122
NCC-V10HCN/2I	10.5(2.9-10.8)	3.11	3.39	11.0(3.2-12.0)	3.14	3.50	970×1327×400	110/121
NCC-V18HCN/2I	17.0(3.8-18.1)	5.60	3.10	18.5(4.0-19.0)	5.78	3.20	970×1327×400	112/123

DC inverter compressor

Twin rotary DC inverter compressor is used. The output of the outdoor unit can be adjusted precisely according to the energy demanded.

Compressor
(Twin Rotary) structure

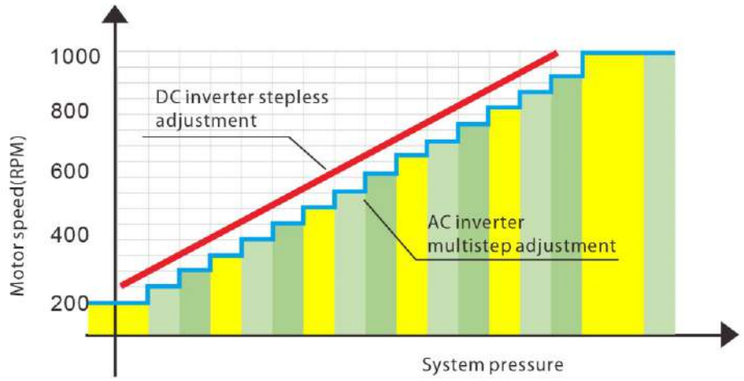
High efficiency DC motor:
- Creative motor core design
- High density neodymium magnet
- Concentrated type stator
- Wider operating frequency range

Better balance and Extremely Low Vibration:
- Twin eccentric cams
- 2 balance weights

Highly Stable Moving Parts:
- Optimal material matching rollers and vanes
- Optimize compressor drive technology
- Highly robust bearings
- Compact structure

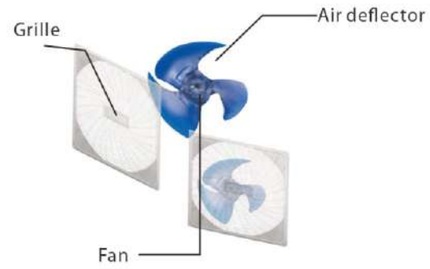
DC fan motor

High efficiency DC fan motor saved power up to 50%.



Advanced technology

DC inverter technology, optimally designed fan shape and air discharge grille ensure low sound values..

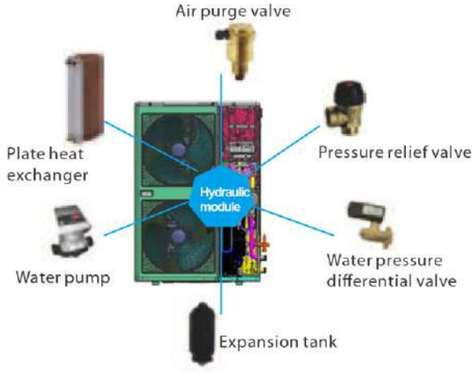


Powerful Large Propeller

Newly Designed Fan Guard

Easy installation

Compact structure design and leak-tight refrigerant circuit save you much installation labor.
The chillers are equipped with a hydronic module integrated into the unit chassis, limiting the installation to straight-forward operations like connection of the power supply, the water supply and the air distribution FCUs.
The units are equipped with axial fans so they can be installed directly outdoors.




CASIO

Aqua Tempo Super II

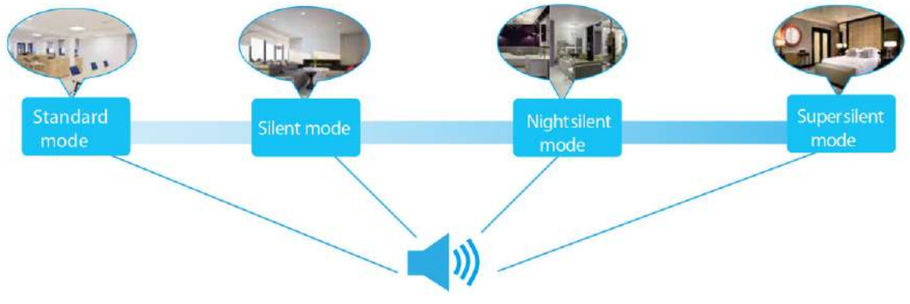
The Aqua Tempo Super II Series is Midea's latest DC inverter air-cooled chiller. Its compact design and excellent performance make it suitable for a wide range of applications. There are two models (MC-SU30-RN1L and MC-SU60-RN1L) both of which can operate in cooling mode with ambient temperatures of up to 52°C and with outlet water temperature as low as 0°C. The water flow switch and wired controller are both built-in,making installation more convenient

Model	Cooling1				Heating2					
	Capacity kW	Input power KW	EER	SEER	Capacity kW	Input power KW	COP	SCOP	Net (WxHxD) mm	Net/Gross weigh Kg
NCC-V30HCN/SI	27	10.8	2.5	4.41	31	10.5	2.95	4.01	1870×1175×1000	300/310
NCC-V60HCN/SI	55	22.0	2.5	4.2	61	20.3	3.00	3.85	2220×1325×1055	480/490

Multiple slient modes

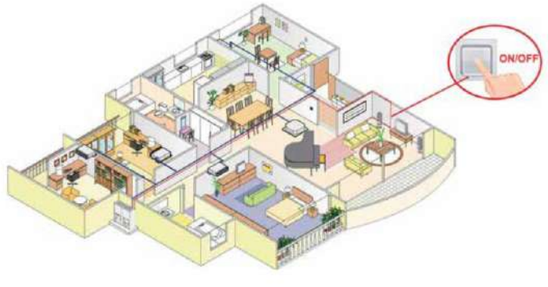
Three different silent modes enable noise reduction to suit time of day and ambient noise levelssign allows up to 16 units to be connected together, giving a system cooling/heating capacity range of 30kW to

.



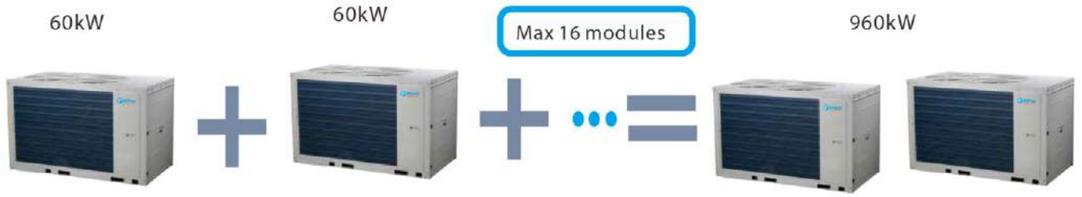
Addtional control

ON/OFF, Cool/Heat and Alarm ports on chiller PCBs allow switches to be connected to enable additional remote control functionality.



Flexibility

Modular design allows up to 16 units to be connected together, giving a system cooling/heating capacity range of 30kW to 960kW.



Compatible with fan coil units and air handling units.

Easy control

Touch key wired controller as standard.

Aqua Tempo Power

Midea Aqua Tempo Power chillers use V shape heat exchanger and single unit' s capacity from 30kW to 250kW. They are divided to PS, PS-LA ,PS-HM and PS-HMLA series according to their operation ambient temperature range and inner components.

CE

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

50Hz PS & PS-LA series (Fixed type)

Model	Cooling1 Capacity kW	Input KW	EER	Heating2 Capacity kW	Input KW	COP	Net (WxHxD) mm	Net/Gross weigh Kg
NCC-30HCN/SI(B) NCC-30HCN/SI	30	10.0	3.00	32	9.8	3.27	1514×1865×841	375/400
NCC-65HCN/SI(B) NCC-65HCN/SI	65	20.4	3.18	69	21.5	3.21	2000×1880×900	580/650
NCC-130HCN/SI(B) NCC-130HCN/SI	130	40.8	3.18	138	43.0	3.21	2000×2090×1685	1150/1270
NCC-200HCN/SI(B) NCC-200HCN/SI	185	63.0	2.93	200	61.0	3.27	2850×2110×2000	1730/2000
NCC-250HCN/SI	250	78.3	3.19	270	80.0	3.38	3800×2130×2000	2450/2600

50Hz PS & PS-LA series (Digital type)

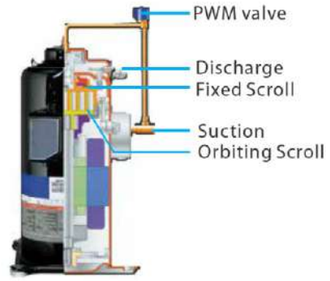
Model	Cooling1 Capacity kW	Input KW	EER	Heating2 Capacity kW	Input KW	COP	Net (WxHxD) mm	Net/Gross weigh Kg
NCC-30HCN/SI(B) NCC-30HCN/SI	30	10.0	3.00	32	9.8	3.27	1514×1865×841	375/400
NCC-65HCN/SI(B) NCC-65HCN/SI	65	20.4	3.18	69	21.5	3.21	2000×1880×900	610/680

Back-up functions

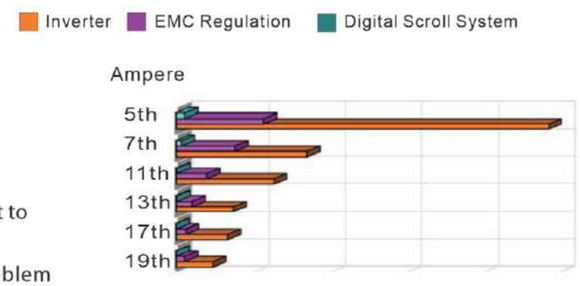
In a combination system, if one module failed, other modules can be back-up instead of the failed one for continuing operation.

Digital scroll technology

The digital scroll compressor utilizes axial compliant sealing technology to precisely adjust the axial motion range of the stator scroll pan. And there is an additional connecting by-pass between the suction inlet and the pressure bore at the floating sealing point of axial stator.



- Provides 40 million times the average service life of PWM solenoid valves, making sure the long life of compressor.
- Guarantees high efficiency by applying axial-compliant sealing technology.



- Provides 10% to 100% stepless capacity output to precisely control room temperature.
- Less electromagnetic interference, no EMC problem

Built-in hydraulic module

MGCSL-F (D) 30W/RN1and MGCS-F (D) 30W/RN1are equipped with a hydraulic module integrated into the unit chassis, limiting the installation to straight-forward operations like connection of the power supply, the water supply and the air distribution terminals.

Individual hydraulic module optional

Individual hydraulic module compatible with cooling capacity of 65kW and 130kw is optional. Water box, expansion water tank, two water pumps are built in the hydraulic box. The integral structure design saves you much installation labor and cost.

HM/II-65S
HM/II-130S

Remote control functions for convenient operation

There are ON/OFF, Heat/Cool and Alarm terminals ports on PCB, connect switches from these terminal ports and remote control functions can be easily realized.

Note: When use the remote control function, the wired controller will be invalid for ON/OFF and mode selection.

Aqua Tempo Super

Aqua Tempo Super chillers use H shape heat exchanger at air side and single unit's capacity from 25kW to 130kW. Super chillers are divided to SS,SS-LA, SP-LA and SP-HMLA series according to their water side heat exchanger and inner components SS series use tube-in-tube or shell-tube heat exchanger and SP series use plate type heat exchanger at water side.

CE

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

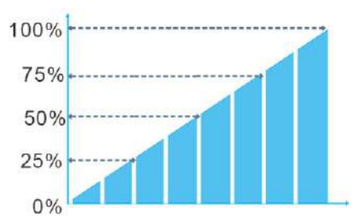
Model	Cooling1 Capacity kW	Cooling1 Input KW	EER	Heating2 Capacity kW	Heating2 Input KW	COP	Net (WxHxD) mm	Net/Gross weigh Kg
NCC-25HCN/SI	25	8.0	3.13	26	8.0	3.27	1020×1770×980	276/286
NCC-35HCN/SI	35	11.5	3.04	37	11.3	3.27	1020×1770×980	304/314
NCC-65HCN/SI	65	20.4	3.19	69	21.5	3.21	2000×1770×960	470/490
MC-SP35M-RN1L	35	12.7	2.76	38	12.5	3.04	1020×1770×980	343/353
MC-SS35/RN1 MC-SS35/RN1L	35	11.5	3.04	37	11.3	3.27	1020×1770×980	320/330
MC-SS65/RN1 MC-SS65/RN1L	65	20.4	3.19	69	21.5	3.21	2000×1770×960	530/590
MC-SS80/RN1 MC-SS80/RN1L	80	25.8	3.10	85	26.5	3.21	2000×1770×960	645/710
MC-SS130/RN1 MC-SS130/RN1L	130	42.3	3.07	138	43.0	3.21	2200×2060×1120	950/1020

Features

Freely combine with fan oil units and air handling units. Home owners may choose the best types according to their functional needs.

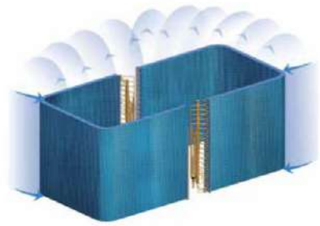
EXV for more precisely flow control

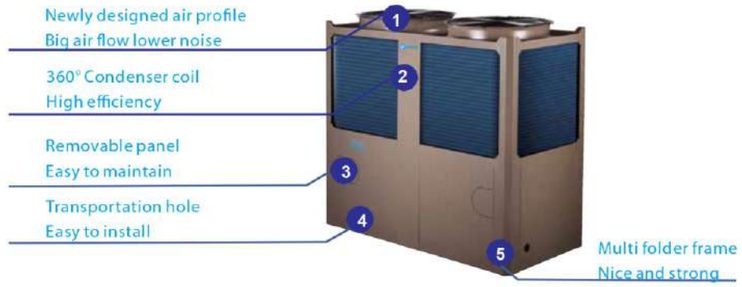
Patented liquid distribution components to maximize performance and minimize defrost impact.
500 steps EXV plus capillary for stable and accurate gas flow control.Fast respond resulting in higher efficiency and improved reliability.



H shape high performance heat exchanger

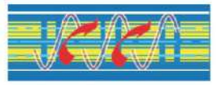
The chillers use new structure design, H shape condenser, 360°air intake, increase the heat exchanging area, efficiently enhance the heat exchange efficiency, and decrease the covering area.





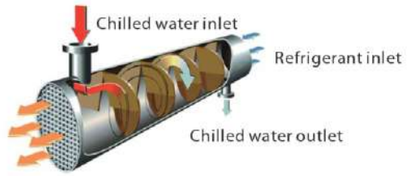
Tube-in-tube & shell-tube heat exchanger (For SS series)

Flat baffle plate



Helical baffle

Refrigerant outlet

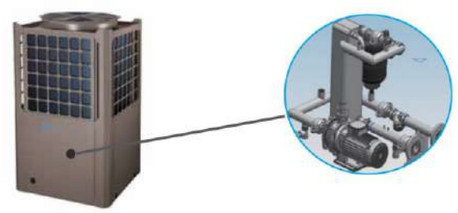


Compact structure design

Super power chiller uses compact structure design, light weight, easy for transportation and installation.

Built-in hydronic module

For SP series, built-in hydraulic module products are available. The modules are fully integrated and built-in expansion tank, plate heat exchanger, water circulating pump, etc. It saves you much installation space and cost



AHRI CERTIFIED® www.ahridirectory.org

Air Handling Unit

Air Handling Unit (AHU) is the primary equipment in an air system of a central hydronic system. It handles and conditions the air and distributes it to various conditioned spaces. Midea air handling units (AHUs) have been designed and manufactured to meet the requirements of all kinds of space cooling and heating, such as oce buildings, shopping malls, exhibition halls, airports, railway stations, hotels, factories and any other central air-conditioning systems.

Type	Air Volume (m3/h)	2000	3000	4000	5000	6000	7000	8000	9000	10500	12000	15000	21000	24000	30000	35000
Suspended AHU	Return air condition	●	●	●	●	●	●	●	●	●	●	●				
	Fresh air condition	●	●	●	●	●	●	●	●	●	●	●				
Horizontal AHU	Return air condition				●	●		●		●		●	●	●	●	●
	Fresh air condition				●	●		●		●		●	●	●	●	●
Vertical AHU	Return air condition	●	●	●	●	●		●		●		●	●	●	●	
	Fresh air condition	●	●	●	●	●		●		●		●	●	●	●	

Stable air supply fan assembly

- Yilida brand centrifugal fan, high performance eciency, 3-phase, class "F" insulation and IP54 protection AC motor.
- Belt drive, optimal selection of drive ratio, increase fan/motor assembly eciency, easy for maintenance.
- Service door or service panel is equipped for inspection of motor and fan.

Low noise design

- Optimal fan selection, excellent working condition, ecient operation.
- Flexible connection at air outlet, minimizes vibration transmision.
- Equip with shock absorbers, decreases vibration, low noise. Tighten cabinet, secure against noise leakage.

Improved indoor air quality

- Aluminum alloy frame plate type Iter, stable and durable.
- Cover the whole return air inlet, large Iter surface, higher inlet air quality.
- Filter can be extracted in leftward and rightward way, easy for maintenance.

Double skin panel

Standard panels are 25mm thickness double skin type with polyurethane foam insulation foamed under highly pressure. The external panel is anti-corrosion color-coated steel sheet with a layer of film and the internal liner is galvanized steel sheet. The panel insulation is moisture proof and anti-corrosive. The insulation material is totally enclosed in the panel to avoid any possibility of insulation being exposed to air stream.

Access panel

Inside

Outside

Access panel is double skins with polyurethane foam insulation foamed under highly pressure. The external panel is anti-corrosion coated steel sheet, the internal liner is galvanized steel sheet or Al sheet. The polyurethane foam insulation is heat resistance and totally enclosed. 2 or 4 bolts are used to fixed the access panel, convenient for installation and maintenance. A durable rubber seal is around the panel's frame and a 10mm thick insulation seal is sticked around the back side frame of the panel to prevent air leakage.

Air dampers

Air dampers in AHUs are optional. Aerodynamically designed damper blades have built in high quality bearings. Blade edges are lined with sealing strip to restrict leakage to an absolute minimum. Air damper blades are either linked to give parallel turning operation or gear set to give opposing direction. The dampers are tested to yield linear control characteristic.

Motor

Coil

Air Iter

Humidier

Electric heater

Eliminator

UV germicidal lamp

Air Handling Unit & Modular Air Handling Unit

Suspended AHU

Horizontal AHU

Vertical AHU

Modular Air Handling Unit

type	Air flow （m3/h)	Air Volume(CMF)	Return air condition	Fresh air condition
Suspended AHU	2,000 ~ 15,000	1,200 ~ 8,800	9.8 ~ 100.7	24.3 ~ 204.8
Horizontal AHU	5,000 ~ 35,000	3,000 ~ 21,000	26.8 ~ 258.4	62.7 ~ 514.5
Vertical AHU	3,000 ~ 30,000	1,800 ~ 18,000	16.1 ~ 218.0	38.7 ~ 425.2
Modular Air Handling Unit	2,000 ~ 240,000	1,200 ~ 140,000		

Orientation

Unit handling orientation is determined by location of pipe connection while facing unit in the direction of air ow. The unit below is left-handed connection unit, otherwise is the right-handed connection unit.

Wide usage

- Air flow rate ranging from 2,000m3/h to 35,000m3/h;
- Three structure design: horizontal type, vertical type and suspended type;
- Two pipe connecting mode: right-handed and left handed;
- Dierent ESP can be customized.

Features and Strengths

1 Patented technology from independent R&D

The unit board with whole foam forming is surrounded by aluminum alloy profiles frame embedded with tongue and groove.During installation, a labyrinth seal structure is formed with interlocking between the tongue and the groove blocks like the form of a tenon. A labyrinth seal unit highly resistant to torsion is therefore constructed by the fastening connection between bolts and embedded nuts. The unit has mechanical strength of up to grade AHRI1350 CD4, and air leakage rate of up to grade AHRI1350 CL1.

Labyrinth seal structure with interlocking between tongue and groove blocks

2 W/o cold bridge, does not easily rust

Inside the unit, polyurethane treated with high-pressure foaming and specially designed rubber sealing strips are used to separate the interior from the external environment, eliminating generation of cold bridge with the cold bridge factor up to grade AHRI1350 CB2. Outside the unit, the sheet metal is wrapped in the framework of aluminum alloy profile and corners of the sheet metal are totally isolated from moist air, completely preventing the metal from getting rusty.

3 International professional certification

AHRI CERTIFIED® www.ahridirectory.org

AHRI1350 certified performance		
Unit strength		CD4
Air leakage rate		CL1
Heat transfer coefficient	Air leakage rate considered	CT2
	Air leakage rate not considered	CT2
Cold bridge factor		CB2

4 High-efficiency heat exchanger

Based on the specialized design software certified by AHRIthat ensures consistency between design parameters and actual performance, the exchanger can satisfy clients' design demands for various operating conditions.The coil adopts quality copper tubes with RoHS certificationand special corrugated aluminum fins combined as a whole through advanced mechanical tube expanding process. 100% air tightness tests are performed before products leave the factory to ensure a leak-free assembly.

AHRI CERTIFIED® www.ahridirectory.org

5 Excellent thermal insulation performance

Formed by one-time foaming of PU having low heat transfer coefficient and internal & external sheet metal with foaming density ≥ 50 kg/m3, the unit panel has good heat insulation and vibration and noise reductionand the heat insulation performance can reach grade AHRI 1350 CT2.

6 Customized

The standard product designed is available in 22 models with air flow covering 2000~50000 CMH, 7 standard combinations, and external static pressure selectable between 120~650 Pa. The product has two standard specifications in terms of wall thickness - 25 mm and 50 mm, and can offer functions such as heating, cooling, filtering and humidifying; meanwhile, various optional components are available for the unit and they can function in flexible combinations to meet demands of different clients.

7 Intelligent integrated control

Electromechanical control can achieve the integrated control over the fan motor and the water valve. The control system is composed of the low-voltage apparatus and the thermostat from world-famous brands. The temperature gauge with communication function (if equipped)may be connected to third party control systems such as building automation system to realize network-based remote monitoring of the unit. The control cabinet offers multiple protections including safeguard against short circuit, power loss and overload to guarantee the stable operation of the unit; meanwhile, various external interlocks are reserved such as control signaling of fire damper, fresh air damper, and switching water valve.In addition to providing comfortable indoor temperature, integrated control saves energy for the chiller

8 Specialized selection verification softwareed

Unit selection is carried out using specialized design software which features user-friendly interface and quick design operation. Meanwhile, this software can meet the clients' verification needs for various non-standard operating conditions, provide optimal configuration schemes, output specialized selection reports and improve design efficiency

AHRI CERTIFIED® www.ahridirectory.org

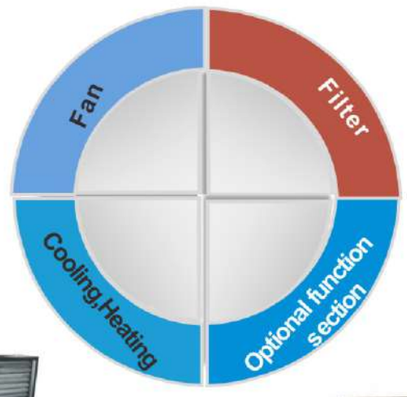
Indoor Units
VRF V4 Plus
indoor unit

Modular Air Handling Unit

MAHUs are modular so that they have the exibility to add components as required. The 3rd generation Midea MAHUs use unitary structure design, more outstanding cold-bridge-free performance, lower air leakage and more elegant appearance.It realizes a variety of functions: cooling, heating, humidication, dehumidication, air purication, noise elimination, and so on

Various Function Sections

Forward fan
Backward fan
Air Foil fan



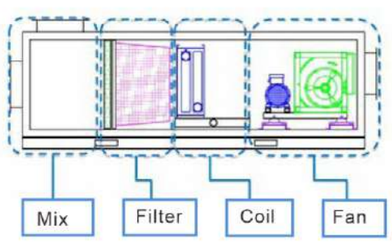
Primary filter
Secondary filter
Sub-Hepa filter
Hepa filter

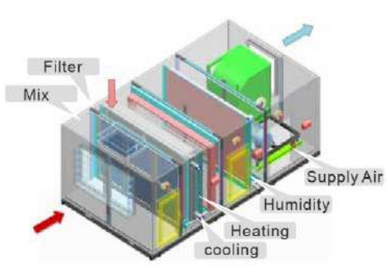
Cold water coil
Hot water coil
Steam coil
Electric heater

Mixing section
Air inlet section
Maintenance section
Purification section
Air outlet section

Humidifying section
Heat recovery sectio
Silencer
Distribution section
Diffuser section

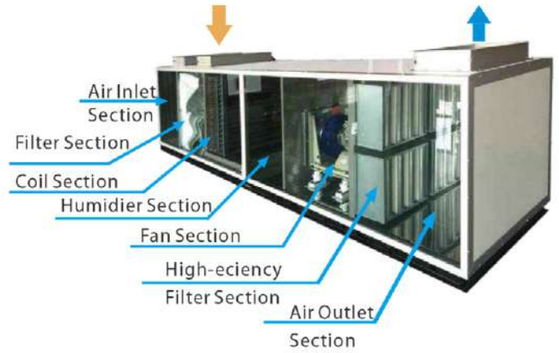
Common Combination





Modular design

Patented "Labyrinth" panel is integrated male and female aluminum prole. Dierent panels of the unit casing are mounted and locked by the labyrinth prole, then fastened with bolts and nuts by embedded sheet metal inside the aluminum prole, and interior steel frame are used on the panel connection to enhance the strength. Square steels would be mounted inside the units to enhance strength for large airow casing.



Humidier

Usually, there is no humidier installed in the MAHUs for comfort air conditioning systems, but the outdoor climate is very cold in winter so that if a humidier is not employed, the winter indoor relative humidity may be too low. Humidiers are necessary for health care facilities and processing systems in pharmaceutical, semiconductor, textile, communication centers, and computer rooms. In Midea MAHUs, wet lm vaporization, dry steam, electrode boiler, and water spray humidiers are widely used. Wet lm vaporization humidier is a type of enthalpy humidier or evaporation gasication humidier. Through the principle of exchange of heat and moisture, the air is humidied and cooled. The medium is inorganic material which is high-life, high reliability, clean,good heat conduction and bacteria resistance. Dry steam or electrode boiler humidiers are widely used in where a warm air supply and humidity control are needed in winter.

Wet film vaporization humidifier

Dry steam humidifier

Electrode boiler humidifier

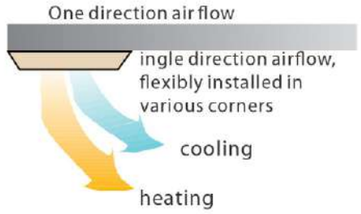
Water spray humidifier

Air dampers

Air dampers in MAHUs are optional. Aerodynamically designed damper blades have built in high quality bearings. Blade edges are lined with sealing strip to restrict leakage to an absolute minimum. Air damper blades are either linked to give parallel turning operation or gear set to give opposing direction. The dampers are tested to yield linear control characteristic.
Mixing dampers working in pairs and can be coupled in such a way that if one is 75% open the other is 25% open.

1-way Cassette

One direction air flow guarantees quick cooling, flexible installa- tion positioning



Model	Air Flow m3/h	Air Flow CFM	Cooling KW	Heating KW	Power input W	Net (WxHxD) mm	Net/Grossweigh Kg
NCP-300HCN/I	510/450/400	300/270/240	3.04/2.79/2.56	5.13/4.69/4.04	32/22/15	1054x153x425	12.8/16.6
NCP-400HCN/I	630/560/500	370/330/300	3.79/3.58/3.38	6.41/5.86/5.11	40/30/25	1054x153x425	12.8/16.6
NCP-600HCN/I	1000/880/800	590/520/470	5.709/4.85/4.36	9.6/8.36/7.48	125/88/65	1200x198x655	32.6/36.3

Compact 4-Way Cassette

4-way air supply panel is standard for 4-way cassette. 360°air supply panel is standard for compact 4-way cassette

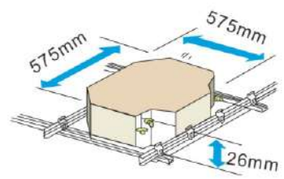
4-way pane

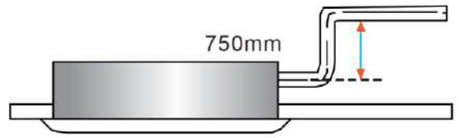
360°panel

Model	Air Flow m3/h	Air Flow CFM	Cooling KW	Heating KW	Power input W	Net (WxHxD) mm	Net/Grossweigh Kg
2-Pipe Compact 4-Way Cassette							
NCP-300HCN/I	510/440/360	300/260/210	3/2.58/2.16	4/3.5/3.08	50/40/30	575x261x575	16.5/20
NCP-400HCN/I	680/580/480	400/340/280	3.7/3.18/2.66	5.1/4.3/3.83	70/50/40	575x261x575	16.5/20
NCP-500HCN/I	850/730/600	500/430/350	4.5/3.6/3.06	6/4.76/4.07	95/53/42	575x261x575	16.5/20
4-Pipe Compact 4-Way Cassette							
NCP-300HCN/I	510/440/360	300/260/210	2.5/2.2/1.76	3.7/3.29/2.92	50/40/30	575x261x575	16.5/20
NCP-400HCN/I	680/580/480	400/340/280	2.9/2.55/2.04	4.6/3.82/3.4	70/50/40	575x261x575	16.5/20
NCP-500HCN/I	850/730/600	500/430/350	3.5/2.87/2.15	5.1/4.03/3.52	95/53/42	575x261x575	16.5/20

4-Way Cassette

For Compact Four-way Cassette: Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling.Due to compact body and light weight, all models can be installed without a hoist.





Fresh air provision makes life healthier and more comfortable

Standard built-in drain pump with 750mm pump head for normal size and 500mm for compact size.

High comfortable, cold and hot water can supply simultaneously
Cooling and heating model can exchange conveniently

Model	Air Flow m3/h	Air Flow CFM	Cooling KW	Heating KW	Power input W	Net (WxHxD) mm	Net/Grossweigh Kg
2-Pipe 4-Way Cassette							
NCP-600HCN/I	1000/850/720	590/500/420	5.7/4.73/3.96	9.66/7.72/6.27	125/84/74	840x230x840	25/30
NCP-750HCN/I	1250/1060/900	740/620/530	7/5.62/4.72	11.55/9.24/7.51	130/102/93	840x230x840	25/30
NCP-850HCN/I	1400/1190/1010	820/700/590	7.27/6.46/5.71	12.42/9.93/8.07	150/124/106	840x300x840	30.5/26.2
NCP-950HCN/I	1600/1360/1150	155/131/106	8.22/7.39/6.54	13.85/11.08/9	155/131/106	840x300x840	30.5/26.2
NCP-1200HCN/I	2000/1700/1440	190/127/109	10.39/9.25/8.2	17.58/14.06/11.42	190/127/109	840x300x840	30.5/26.2
NCP-1500HCN/I	2550/2170/1840	190/136/109	12.9/11.51/10.21	7.6/14.08/11.44	190/136/109	840x300x840	31.8/36
4-Pipe 4-Way Cassette							
NCP-600HCN/I	1150/800/690	680/470/410	5.1/4.08/3.76	6.67/5.87/5.07	170/120/85	840x300x840	35/41
NCP-750HCN/I	1460/1020/880	860/600/510	5.93/4.41/3.94	7.87/6.85/5.9	188/135/90	840x300x840	35/41
NCP-850HCN/I	1480/1040/890	870/610/520	6.17/5.13/4.59	8.06/6.93/6.05	198/140/100	840x300x840	35/41
NCP-950HCN/I	1720/1200/1030	1010/700/610	6.7/5.48/4.85	8.67/7.63/6.59	205/145/105	840x300x840	35/41
NCP-1200HCN/I	1860/1300/1110	1090/760/650	9.28/7.45/6.5	11.65/10.49/8.85	197/135/103	840x300x840	38/44
NCP-1500HCN/I	2100/1470/1260	1230/860/740	10.58/7.45/6.5	12.62/11.36/9.47	234/165/115	840x300x840	38/44

Duct Series

Fan coil unit is a kind of compound device which assemble fan and heat exchanger together. Fan coil with fresh air supply system is a main type of center air-conditioner system, so it is an important component of AC devices. Fan coil has horizontal type, vertical type, etc. A cooling (heating) supply system usually consists of fan coil terminals and chilled water system (heated water system)

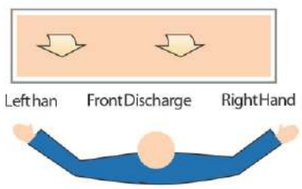
Features

Wider capacity range: 200~1400 CFM, adding1400CFM compared with the 2nd generation 4-pipe ducted type;
Two external static pressure (12Pa/30Pa) settings for added flexibility , and 50Pa is customizable.
Lower noise due to larger fin spacing added up to 2.2mm;
Space saving, only 241 in height;
Higher heat exchange efficiency for complete contranatant flow type;

The performance is improved for larger air outlet area

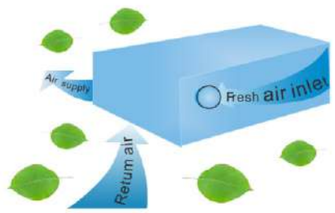
Flexible Installation

Left and right hand piping connections are optional, flexible installation.



Fresh Air Intake

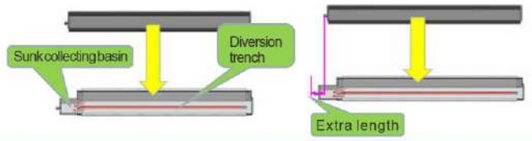
Fresh air can enter through the duct unit so you can enjoy even fresher air in a room.



Model	Air Flow(H/M/L) m3/h	CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input 12pa(H/M/L) W	Sound pressure leve12Pa(H/M/L) dB(A)	ESP PA	Net (WxHxD) mm	Net/Gross weigh Kg
2-Pipes 2-Rows									
NCP-200HCN/I	340/255/170	200/150/100	2/1.74/1.52	3.2/2.75/2.37	31/25/22	36/34/29	12/30	741×241×522	13.9/16.2
NCP-300HCN/I	510/385/255	300/225/150	2.7/2.31/2.03	4.3/3.74/3.23	50/40/35	38/33/29	12/30	841×241×522	16.5/19
NCP-400HCN/I	680/510/340	400/300/200	3.6/3.11/2.66	5.4/4.64/4.05	60/48/42	38/35/31	12/30	941×241×522	19.2/21.6
NCP-500HCN/I	850/640/425	500/375/250	4.4/3.74/3.25	6.8/5.78/5.07	80/64/56	39/36/32	12/30	941×241×522	19.2/21.6
NCP-600HCN/I	1020/765/510	600/450/300	5.5/4.58/4.09	8.1/6.77/5.92	97/78/68	40/36/33	12/30	1161×241×522	22/25
NCP-800HCN/I	1360/1020/680	800/600/400	7.5/6.33/5.68	11/9.48/8.25	140/112/98	42/37/33	12/30	1461×241×522	30.9/34.5
NCP-1000HCN/I	1700/1275/850	1000/750/500	8.9/7.61/6.41	13.5/11.72/10.03	172/138/120	44/39/34	12/30	1566×241×522	33.4/37
NCP-1200HCN/I	2040/1530/1020	1200/900/600	10.8/9.13/7.93	16.5/14.05/12.24	205/164/144	46/40/35	12/30	1856×241×522	38.5/42
NCP-1400HCN/I	2380/1785/1190	1400/1050/700	12.3/10.46/9.27	19.5/16.85/14.63	216/173/151	48/42/37	12/30	2022×241×522	42.1/47.5
2-Pipes 3-Rows									
NCP-200HCN/I	340/255/170	200/150/100	2.2/1.9/1.68	3.5/3.08/2.59	33/25/22	35/32/26	12/30	741×241×522	14.6/16.9
NCP-300HCN/I	510/385/255	300/225/150	3.1/2.7/2.3	5.3/4.61/3.98	53/41/35	36/33/27	12/30	841×241×522	17/19.5
NCP-400HCN/I	680/510/340	400/300/200	4/3.4/2.95	6.8/5.85/5.1	66/53/48	37/34/28	12/30	941×241×522	20.2/22.6
NCP-500HCN/I	850/640/425	500/375/250	4.6/3.96/3.45	7.9/6.95/6	87/53/44	40/36/30	12/30	941×241×522	20.2/22.6
NCP-600HCN/I	1020/765/510	600/450/300	5.8/4.88/4.45	9.8/8.6/7.4	100/65/55	42/38/32	12/30	1161×241×522	23/26
NCP-800HCN/I	1360/1020/680	800/600/400	8.2/6.88/6.25	13.6/11.97/10.2	145/121/108	43/39/33	12/30	1461×241×522	31.9/35.5
NCP-1000HCN/I	1700/1275/850	1000/750/500	9/7.8/6.57	16/14.24/12	180/114/97	45/41/35	12/30	1566×241×522	34.4/38.1
NCP-1200HCN/I	2380/1785/1190	1200/900/600	11/9.8/8.35	20.1/18.27/15.43	210/140/120	46/42/36	12/30	1856×241×522	39.5/43
NCP-1400HCN/I	2040/1530/1020	1400/1050/700	12.5/10.8/9.44	21/18.7/15.75	222/179/155	48/44/38	12/30	2022×241×522	43.1/48.4
2-Pipes 4-Rows									
NCP-200HCN/I	340/255/170	200/150/100	2.5/2.16/1.87	4.1/3.51/3.03	50/40/35	37/33/27	30	741×241×522	15.3/17.6
NCP-300HCN/I	510/385/255	300/225/150	3.3/2.85/2.47	5.8/5.05/4.35	65/52/46	38/34/28	30	841×241×522	17.5/20
NCP-400HCN/I	680/510/340	400/300/200	4.4/3.72/3.22	7.1/6.11/5.33	80/64/56	38/35/29	30	941×241×522	20.7/23.1
NCP-500HCN/I	850/640/425	500/375/250	4.8/4.18/3.64	8.5/7.04/6.28	98/78/69	40/35/30	30	941×241×522	20.7/23.1
NCP-600HCN/I	1020/765/510	600/450/300	6.2/5.38/4.65	10.5/9.03/7.77	110/88/77	41/36/31	30	1161×241×522	23.5/26.5
NCP-800HCN/I	1360/1020/680	800/600/400	8.8/7.43/6.57	14.5/12.38/10.88	155/124/109	42/37/32	30	1461×241×522	32.9/36.5
NCP-1000HCN/I	1700/1275/850	1000/750/500	9.5/8.18/7.06	16.3/13.45/12.05	180/144/126	44/39/33	30	1566×241×522	35.4/39.1
NCP-1200HCN/I	2040/1530/1020	1200/900/600	11.8/9.82/8.74	16.5/14.05/12.23	220/176/154	45/40/34	30	1856×241×522	40.5/44
NCP-1400HCN/I	2380/1785/1190	1400/1050/700	13/11.23/9.83	17/14.31/12.69	275/220/193	47/42/36	30	2022×241×522	44.1/49.4
NCP-1500HCN/I	2550/2100/1300	1500/1240/760	13.5/11.5/10.1	17.5/14.9/13.2	236/189/165	48/44/39	30	1369×342×612	46/49.8
NCP-2000HCN/I	3400/2550/1700	2000/1500/1000	18/15.3/13.5	23.4/19.8/17.5	360/288/252	50/46/41	30	1500×342×612	57/61
4-Pipes 3-Rows									
NCP-200HCN/I	340/255/170	200/150/100	2/1.76/1.52	3/2.64/2.22	33/26/23	35/32/26	12/30	741×241×522	15.1/17.4
NCP-300HCN/I	510/385/255	300/225/150	2.7/2.35/2.13	4/3.48/3	53/38/31	36/33/27	12/30	841×241×522	17.5/20
NCP-400HCN/I	680/510/340	400/300/200	3.6/3.15/2.76	5.2/4.47/3.9	66/48/42	37/34/28	12/30	941×241×522	20.7/23.1
NCP-500HCN/I	850/640/425	500/375/250	4.3/3.74/3.32	5.7/5.02/4.33	87/54/44	40/36/30	12/30	941×241×522	20.7/23.1
NCP-600HCN/I	1020/765/510	600/450/300	5/4.32/3.84	7.2/6.19/5.33	100/67/56	42/38/32	12/30	1161×241×522	23.5/26.5
NCP-800HCN/I	1360/1020/680	800/600/400	6.8/5.78/5.11	9.6/8.45/7.2	145/130/111	43/39/33	12/30	1461×241×522	32.4/36
NCP-1000HCN/I	1700/1275/850	1000/750/500	7.8/6.74/5.88	10.8/9.61/8.1	180/104/88	45/41/35	12/30	1566×241×522	34.9/38.6
NCP-1200HCN/I	2040/1530/1020	1200/900/600	10.2/8.89/7.85	13.5/12.15/10.26	210/140/123	46/42/36	12/30	1856×241×522	40/43.5
NCP-1400HCN/I	2380/1785/1190	1400/1050/700	11.5/9.9/8.86	15.5/13.48/11.78	222/201/182	48/44/38	12/30	2022×241×522	43.6/48.9

A4 Type Duct

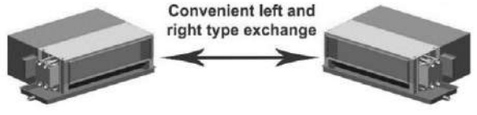
Diversion trench and sunk collecting basin design making better drainage. Longer length of V type drain pan can better receive the drain ,water dripping from the water piping and valve connection.



Model	Air Flow(H/M/L) m3/h	CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input (H/M/L) W	Sound pressure leve (H/M/L) dB(A)	ESP PA	Net (WxHxD) mm	Net/Gross weigh Kg
NCP-800HCN/I-K3	1500/1412/1265	882/831/745	6.97/6.66/6.28	9.57/9.09/8.43	151/130/111	49.7/47.8/45.6	50	1180x340x612	38.3/47.2
NCP-800HCN/I-K4	1400/1342/1200	824/790/706	7.92/7.56/7.09	10.42/9.89/9.12	144/124/105	48.4/47.9/46.6	50	1180x340x612	39.3/47
NCP-1000HCN/I-K3	1700/1664/1554	1000/980/915	7.77/7.58/7.33	10.61/10.25/9.82	174/147/130	50.1/48/45.8	50	1180x340x612	39.8/48.6
NCP-1000HCN/IK4	1650/1527/1405	970/900/827	8.15/7.93/7.54	11.25/10.72/10.06	176/146/128	49.5/48.1/47.3	50	1180x340x612	40.8/49.6
NCP-1200HCN/I	2040/1851/1666	1200/1090/981	10.8/10.17/9.55	14.3/13.23/12.22	320/284/250	50.9/50/48.5	50	1369x340x612	46.3/56.4
NCP-1400HCN/I	2420/1851/1666	1424/1090/981	12.14/10.17/9.55	16.08/13.23/12.22	392/284/250	51.7/50/49.5	50	1369x340x612	46.3/56.4
NCP-1600HCN/I	2430/1917/1742	1431/1128/1025	12.19/10.54/9.87	16.55/13.83/12.9	482/338/296	52.9/50.7/50	50	1369x340x612	46.3/56.4
NCP-1800HCN/I	3380/2239/1878	1990/1318/1105	16.16/12.35/11.01	21.7/15.79/13.91	538/358/308	53.6/51.1/50.2	50	1500x340x612	54.8/64.6
NCP-2000HCN/I	3670/2544/2199	2160/1497/1294	17.34/13.75/12.44	23.4/17.92/16.08	583/387/334	54.4/52.7/51.6	50	1500x340x612	54.8/64.6

High Static Pressure Duct

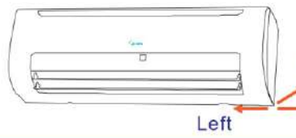
Symmetrical structural design. Pipe connection form left or right can be exchanged conveniently by exchanging fan ass'y and outflow flange for the symmetrical structural design;

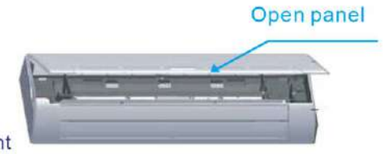


Model	Air Flow(H/M/L) m3/h	CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input (H/M/L) W	Sound pressure leve (H/M/L) dB(A)	ESP PA	Net (WxHxD) mm	Net/Gross weigh Kg
NCP-800HCN/I	1360/1220/1090	800/720/640	6.6/6.37/6.12	9.7/8.54/7.18	320/300/285	49/42/35	70	946×400×816	50/55
NCP-1000HCN/I	1700/1530/1380	1000/900/810	8.8/8.19/7.57	13.2/11.48/9.9	350/320/300	50/43/36	70	946×400×816	52/57
NCP-1200HCN/I	2040/1880/1610	1200/1105/950	10/9.44/8.53	15/12.9/11.25	350/320/290	51/44/37	70	946×400×816	52/57
NCP-1400HCN/I	2380/2120/1860	1400/1250/1095	12/11.47/10.24	17.9/15.75/13.6	350/300/285	52/45/38	70	946×400×816	54/59
NCP-1600HCN/I	2720/2450/2170	1600/1440/1280	14.1/13.03/11.87	21.2/18.23/15.69	550/520/500	54/47/40	70	1290×400×809	76/83
NCP-1800HCN/I	3060/2750/2450	1800/1620/1440	15.8/14.6/13.46	23.8/20.94/17.85	800/680/620	60/53/46	70	1290×400×809	76/83
NCP-2200HCN/I	3740/3360/2990	2200/1980/1760	19.9/18.58/17.24	30/26.7/22.5	950/860/760	61/54/47	70	1290×400×809	76/83

Wall Mounted (C Type)

Multi-directional outlet pipe feature: left\right\ rear, to meet the needs of different rooms. Removable front panel making maintenance convenient.

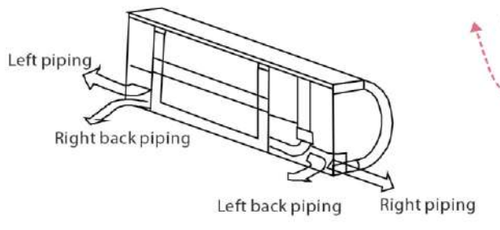


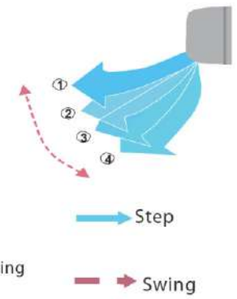


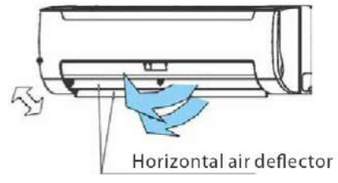
Model	Air Flow(H/M/L) m3/h	CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input (H/M/L) W	Sound pressure leve (H/M/L) dB(A)	Net (WxHxD) mm	Net/Gross weigh Kg
NCP-250HCN/I	425/360/320	250/210/190	2.2/1.84/1.65	3.02/2.6/2.23	28/22/20	30/24/20	915x290x210	12/16
NCP-300HCN/I	510/430/380	300/250/220	2.64/2.24/2.05	3.69/3.25/2.77	40/32/28	35/29/24	915x290x210	12/16.7
NCP-400HCN/I	680/580/510	400/340/300	3.08/2.62/2.27	4.34/3.86/3.25	44/35/31	37/31/26	915x290x210	12/17
NCP-500HCN/I	850/720/640	500/420/380	4.07/3.73/3.24	5.69/5.12/4.32	50/40/35	39/33/28	1070x315x210	15/19
NCP-600HCN/I	1020/870/770	600/510/450	4.45/4.18/3.74	6.3/5.67/4.73	60/48/42	40/34/29	1070x315x210	15/19

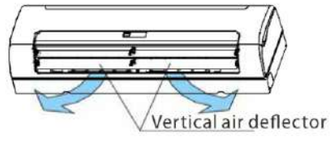
Wall Mounted (S Type)

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected









Model	Air Flow(H/M/L) m3/h	CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input (H/M/L) W	Sound pressure leve (H/M/L) dB(A)	Net (WxHxD) mm	Net/Gross weigh Kg
NCP-250HCN/I-B	425/390/350	250/230/205	2.63/2.41/2.16	3.36/3.1/2.79	24/19/17	30/24/20	915×290×230	13/16.3
NCP-300HCN/I-B	510/470/390	300/275/230	2.97/2.47/2.12	3.91/3.26/2.77	37/29/26	35/29/24	915×290×230	13/16.3
NCP-400HCN/I-B	680/550/460	400/325/270	3.28/2.83/2.41	4.37/3.73/3.17	40/32/28	37/31/26	915×290×230	13.3/16.7
NCP-500HCN/I-B	850/745/620	500/440/365	4.25/3.85/3.32	5.81/5.17/4.43	50/40/35	39/33/28	1072×315×230	15.8/19.4
NCP-600HCN/I-B	1020/915/780	600/540/460	5/4.47/3.97	6.7/6/5.28	66/53/46	40/34/29	1072×315×230	15.8/19.4

Concealed Type
F3/H3 Series

Exposed Type
(air return from side)
F4/H4 Series

Exposed Type
(air return from bottom)
F5/H5 Series

Floor-standing

Cabinet and concealed versions meet various installation requirements.
Horizontal or vertical installation.
Air can return from front or bottom of the unit

Floor installation

Ceiling installation

Model	Air Flow(H/M/L) m3/h	Air Flow(H/M/L) CFM	Cooling(H/M/L) KW	Heating(H/M/L) KW	Power input (H/M/L) W	Sound pressure leve (H/M/L) dB(A)	Net (WxHxD) mm	Net/Gross weigh Kg
Floor-standing								
NCP-150HCN/I	255/215/190	150/125/110	1.15/0.93/0.89	2.54/2.24/1.88	27/22/19	30/27/24	550×545×212	17/19
NCP-250HCN/I	425/360/320	250/210/190	1.87/1.74/1.59	4.17/3.36/3.13	29/23/20	33/30/28	550×545×212	17/19
NCP-300HCN/I	510/430/380	300/250/220	2.53/2.25/1.88	5.64/4.85/4.23	40/32/28	35/32/30	750×545×212	20/23.5
NCP-400HCN/I	680/580/510	400/340/300	3.27/2.84/2.54	7.22/6.35/5.49	46/37/32	37/34/32	750×545×212	20/23.5
NCP-450HCN/I	765/650/570	450/380/335	3.97/3.58/3.15	8.85/7.61/6.55	39/31/27	39/36/34	950×545×212	25/29
NCP-500HCN/I	850/720/640	500/420/375	4.85/4.41/3.72	10.28/9.05/7.71	49/39/34	41/38/36	950×545×212	25/29
NCP-600HCN/I	1020/870/765	600/510/450	5.64/5.02/4.46	12.24/10.89/9.18	63/50/44	42/39/37	1250×545×212	32/36
NCP-800HCN/I	1360/1160/1020	800/680/600	6.52/5.75/4.36	15.35/13.82/11.67	88/70/62	44/41/38	1250×545×212	32/36
NCP-900HCN/I	1530/1300/1150	900/760/675	7.85/7.19/6.55	18.2/16.38/13.65	137/109/96	46/43/40	1250×545×212	32/36
Ceiling&Floor								
NCP-150HCN/I	255/215/190	150/125/110	1.15/0.93/0.89	1.52/1.22/1.14	27/22/19	30/27/24	550×545×212	17/19
NCP-250HCN/I	425/360/320	250/210/190	1.87/1.74/1.59	2.53/2.28/2.1	29/23/20	33/30/28	550×545×212	17/19
NCP-300HCN/I	510/430/380	300/250/220	2.53/2.25/1.88	3.49/2.97/2.44	40/32/28	35/32/30	750×545×212	20/23.5
NCP-400HCN/I	680/580/510	400/340/300	3.27/2.84/2.54	4.58/3.89/3.44	46/37/32	37/34/32	750×545×212	20/23.5
NCP-450HCN/I	765/650/570	450/380/335	3.97/3.58/3.15	5.64/4.79/4.23	39/31/27	39/36/34	950×545×212	25/29
NCP-500HCN/I	850/720/640	500/420/375	4.85/4.41/3.72	6.98/6.28/5.23	49/39/34	41/38/36	950×545×212	25/29
NCP-600HCN/I	1020/870/765	600/510/450	5.64/5.02/4.46	8.23/6.58/5.59	63/50/44	42/39/37	1250×545×212	32/36
NCP-800HCN/I	1360/1160/1020	800/680/600	6.52/5.75/4.36	9.58/8.14/6.32	88/70/62	44/41/38	1250×545×212	32/36
NCP-900HCN/I	1530/1300/1150	900/760/675	7.85/7.19/6.55	11.69/10.52/9.35	137/109/96	46/43/40	1250×545×212	32/36

High Rise Vertical Fan Coil

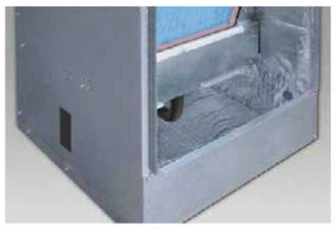
Unit Size	Nominal
03	350
04	450
06	600
08	800
10	1000
12	1200

Fan Deck

For ease of service, the fan/motor assembly is easily removed by unscrewing two locknuts located at the front of the assembly. Slide rails support the fan during removal and installation, and the electrical harness is equipped with a quick connect plug.

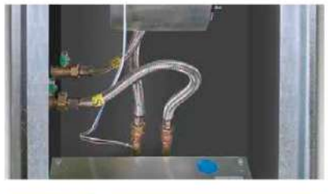
Drain Pan

The sloped insulated drain pan is available in stainless steel construction. Standard drain pans are double wall,composite, extend under the entire coil section, double sloped, and are removable. As an option, the VH Series drain pan can be equipped for easy removal from the front of the unit for inspection and cleaning. For optimum moisture resistance and cleanability,the fan coil unit maybe lined with foil faced fiberglass insulation (shown above) or elastomeric closed cell foam insulation.



Coils And Piping

All fan coils are available in 2 or 4 pipe configurations.The heating coil is standard in the reheat position.Access for cleaning on both the entering and leaving air sides is available. Coils are removable from the front of the unit for service.



STAINLESS STEEL BRAIDED HOSES

Stainless steel braided hoses allow for flexibility and thermal expansion within the unit cabinet. The hose-tocoil and hose-to-riser connections are made via a threaded swivel adapter, simplifying coil removal.

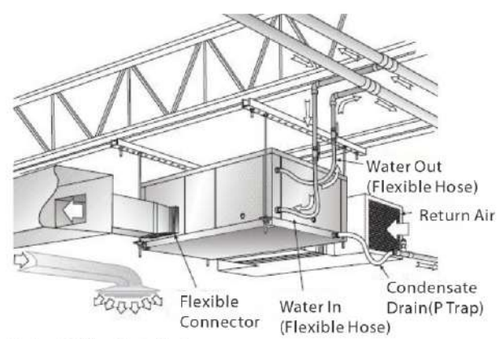
Water Cooled Packaged

Application areas :Offices, Hotels, Hospitals Industry, Administration, Commercial buildings.
Why this choice?

- Saving space
- Galvanised steel or Foam insulated construction
- AMWCP are well insulated to minimise condensation and attenuate noise.

Model	Cooling capacity KW	Cooling power input KW	Air flow amount m^3/h	External static pressure (Pa)	Noise level dB(A)	Net (LxWxH) mm	Net/Grossweigh Kg
WCP2.5	2.5	0.71	490	30	39.0	910x760x430	60
WCP3.5	3.5	0.98	620	30	40.0	940x760x430	65
WCP5	5	1.4	900	30	42.0	940x760x450	75
WCP7	7	1.92	1280	30	44.0	1210x790x450	90
WCP10	10	2.8	1900	60	46.0	1320x790x480	110
WCP12	12.2	3.32	2060	100	47.0	1410x790x480	125
WCP14	14	3.9	2500	120	50.0	1280x930x600	140
WCP18	18	5.1	3200	150	62.0	1280x980x600	170
WCP26	26	7.8	4400	200	63.0	2060x1160x660	220
WCP35	35	10	6000	250	65.0	2060x1130x660	300
WCP42	42	12.5	7200	250	68.0	2230x1130x660	380

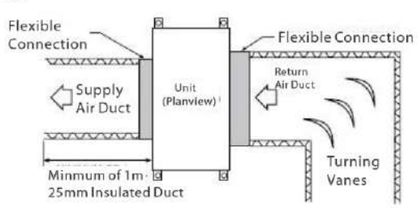
Installation and pipe connection

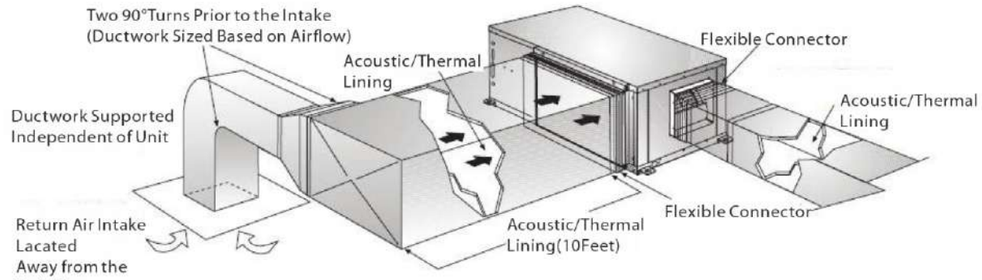


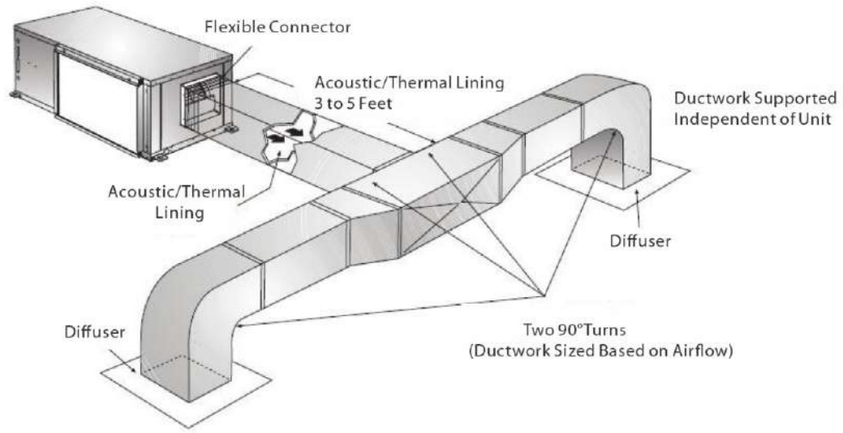
Typical Ceiling Installation

Recommendations for Noise Isolation

- Avoid installing units, with non-ducted return air, directly above spaces where noise is critical.
- Use flexible connections between unit and rigid ducting.
- Use generously sized acoustically lined ducts.
- If generous duct size is not possible, use turning vanes on bends to reduce air turbulence (regenerated noise).
- Use 90°bends in ducting to significantly assist in noise reduction







Characteristics

Structure

Galvanised steel or foam insulated construction,closed cell foam lined compressor and fan compartments, with an insulted and powder coated drain tray for complete moisture protection, the drain tray is easily removed for inspection and cleaning.

Refrigerant

Each unit is factory charged with refrigerant R410a, which is deemed to have zero ozone depletion potential.

Centrifugal fan

High efficiency, double inlet centrifugal fan Protection level IP44. Low noise, low speed, big air flow and high ESP.

Safety protection

- High pressure switch
- Low pressure switch
- Discharge temperature protection
- Anti freezing protection

Air filter

An optional filter integrated return air spigot is available on all models.The filter is a washable polypropylene net media. Care should be taken,when locating each unit, that to enough space is provided to enable the one-piece filter to be withdrawn to its full length from either side of the unit.

Water side heat exchanger

High efficiency coaxial heat exchanger, factory insulated with flexible close cell material.

Hermetic compressor

Single phase rotary compressor is used for small capacity and Scroll for bigger models,with built-in thermal overload cut-out, mounted on rubber vibration dampers.

Electric panel

Consists of:

- Compressor contactor
- Compressor protection breaker
- Microprocessor with function display

Sr04 Motorized Valve

Model A type(non-detachable)	Model B type(detachable)	Type	Size	Kv	Closing-off pressure (MPa)
SR04GC21520A4	SR04GC21520B4	2-w ay	DN15	2.0	0.20
SR04GC21532A4	SR04GC21532B4	2-w ay	DN15	3.2	0.15
SR04GB31543A4	SR04GB31543B4	3-w ay	DN15	4.3	0.10
SR04GC22020A4	SR04GC22020B4	2-w ay	DN20	2.0	0.20
SR04GC22032A4	SR04GC22032B4	2-w ay	DN20	3.2	0.15
SR04GB32046A4	SR04GB32046B4	3-w ay	DN20	4.6	0.10
SR04GC22557A4	SR04GC22557B4	2-w ay	DN25	5.7	0.10
SR04GB32557A4	SR04GB32557B4	3-w ay	DN25	5.7	0.10

DN15--DN25 Modulating Motorized Ball Valve

Valve Model	Size	Kv		Model	SBA03-220	SBA03-024E
SBV02G2*15040S	DN15	4	Actuator	Power supply	220VAC	24VAC
SBV02G2*20063S	DN20	6.3	Actuator	Signal	Three point floating /on-off 0~10v	
SBV02G2*25100S	DN25	10	Actuator	Operation time	45s (50Hz/90°)	

lectronic Thermostat Series

SRT04E	SRT25E	SRE05	SRE06	SRE07
				

Mechanical Thermostat Series

SRT022YJ	SRT04T	SRT03T	SRT003YJ
			

Water Pump

ZPS	ZP	XP-F	XP	XPS-F	XPS
					

Big Circulation Inline Pump

PTD	PW	PC	P2C
			

PZ	PT	PG
		

NEWEX

Precision Air Conditioner

In-Room

In-Row

In-Rack

In-Cell

In-Room	Chilled-water	40KW/50KW/60KW/70KW/80KW/100KW/120KW/130KW/150KW/180KW/200KW
	Air-cooled	25KW/30KW/35KW/40KW/45KW/50KW/55KW/60KW/70KW/80KW/90KW/100KW
In-Row	CW chilled-water	30KW/80KW
	DX air-cooled	25KW/40KW
In-Rack	Gravity type heat pipe rear panel unit	7KW/12KW
	Refrigerant condensing unit	30KW/60KW/90KW/120KW/150KW

Application

Data Center

Computer Room

Telecom Room

Industrial Control Room

UPS and Battery Room

Features

High Reliability

- 365 days 7x24- hour uninterrupted operation design
- All parts are tested and inspected strictly.
- Safe and reliable PTC electric heating and far- infrared humidification
- Complete alert protection and auto diagnosis function .
- In conformity with safety regulation, EMC and CE certification

Advanced Technique

- ISO quality management and lean production (TPS)
- Manufacturing techniques for IT equipments
- Fine and decent black cabinet matches data center perfectly
- High- strength frame is suitable for sea,land and air transportation

High Efficiency And Energy Saving

- Optimum design of heat exchanger and air duct by CFD, high efficiency and low resistance for heat and mass transfer.
- Pleated G4 pre- filter filter with big surface area, large capacity and low resistance
- Classified refrigeration system design, intelligent cooling capacity adjustment
- High precision PID Damper (chilled water type)
- High COP compliant scroll compressor
- High- efficient and low- noise unhoused fan (Sinking Design)
- Stepless Speed Scythe Condensing fan
- Complete intelligent control system ensures dynamic optimization
- Varieties of extended energy- saving functions:
- Freon pump / glycol free- cooling function
- Dual- cooling source function
- Stepless speed EC fan
- High- efficient inverter compressor
- High- precision electronic expansion valve
- Use high- efficient and eco R410A refrigerant

Easy Maintenance

- Front maintenance design
- Compressor intake and exhaust port adopts easy maintained ROTAL- LOCK nipple
- Fan and motor direct- connected integral design, no need to change belt
- Far- infrared humidifier operates with free maintenance

Room Saving

- Compact and modular design
- Save installation area and maintenance space as much as possible
- Modular design ensures convenient disassembly for transportation and on- site assembly
- Single module only covers an area of 0.9. and 1.8 for maintenance.
- Cooling capacity per unit area reaches 70kW/ maximum

Intelligent Management

Human-machineIn terface Design

- 7"LCD touch panel
- Humanized design, one- touch operation
- Component color image is dynamically displayed
- Temperature and humidity data are displayed by Trendchart
- Store and display maximum 400 alert logs

Alert Protection

- Complete automatic protection and alert function
- Auto diagnosis
- Full parameter measurement and adjustment
- Auto restart
- Water- leakage detection
- Lightning protection

Teamwork Control

- Standard RS485 communication interface and model- bus communication protocol
- Teamwork control for maximum 32 units
- Data backup, tuning and cascade to avoid race runnin
- Disaster recovery monitoring
- GPRS SMS auto send function

Adaptable to different application environments

- Wide range cooling capacity
- Applicable to operation ambient temperature range -40 °C~ +55°C
- Various air supply and return modes
- Varieties of pipe inlet and outlet modes
- Varieties of power supply designs
- Long- connecting pipe and high- drop designs
- Far- infrared humidifier applicable to varieties of water conditions
- Eco designs in compliance with ROHS, REACH and etc.
- CE, UL and TUV certificates obtained
- Quick response to market with flexible customized solutions

More comprehensive than ever

the unique combination for the future of HVAC

Industrial

097 Air Cooled Scroll Chiller

099 Air Cooled Screw Chiller

101 Water Cooled Screw Chiller

105 Centrifugal Chiller

111 Inverter Chiller

115 Cooling Tower

Large capacity air cooled scroll chiller

Air cooled scroll chiller

large capacity air cooled scroll chiller adopts a modular design. Two basic modules and max. 8 units can be combined.The unit can be widely used in various buildings, including hotels, hospitals, schools, factories, and oce buildings, etc

AHRI CERTIFIED® www.ahridirectory.org

380V-3Ph-50Hz, Cooling only

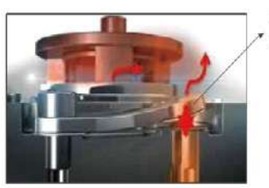
Model	Cooling capacity KW	Cooling power input KW	Cooling COP W/W	IPLV W/W	Partial heat recovery* KW	Type
NCC-95CN/S0	330	106	3.113	4.131	99	Hermetic scroll compressor
NCC-125CN/S0	440	141	3.12	4.141	132	Hermetic scroll compressor
NCC-190CN/S0	660	212	3.113	4.131	198	Hermetic scroll compressor
NCC-220CN/S0	770	247	3.117	4.135	231	Hermetic scroll compressor
NCC-250CN/S0	880	282	3.12	4.141	264	Hermetic scroll compressor

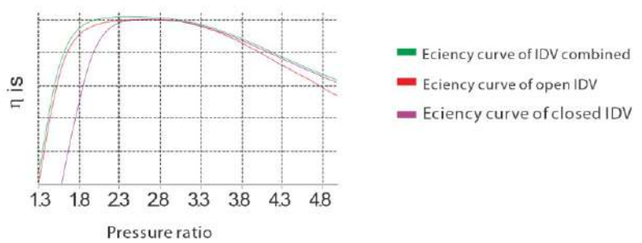
460V-3Ph-60Hz, Cooling only

Model	Cooling capacity KW	Cooling power input KW	Cooling COP KW/KW	IPLV KW/KW	Partial heat recovery* KW	Type
NCC-115CN/40	400	134	2.985	4.008	112	Hermetic scroll compressor
NCC-150CN/40	535	179	2.988	4.018	150	Hermetic scroll compressor
NCC-230CN/40	800	268	2.985	4.008	224	Hermetic scroll compressor
NCC-265CN/40	935	313	2.987	4.012	262	Hermetic scroll compressor
NCC-300CN/40	1070	358	2.988	4.018	300	Hermetic scroll compressor

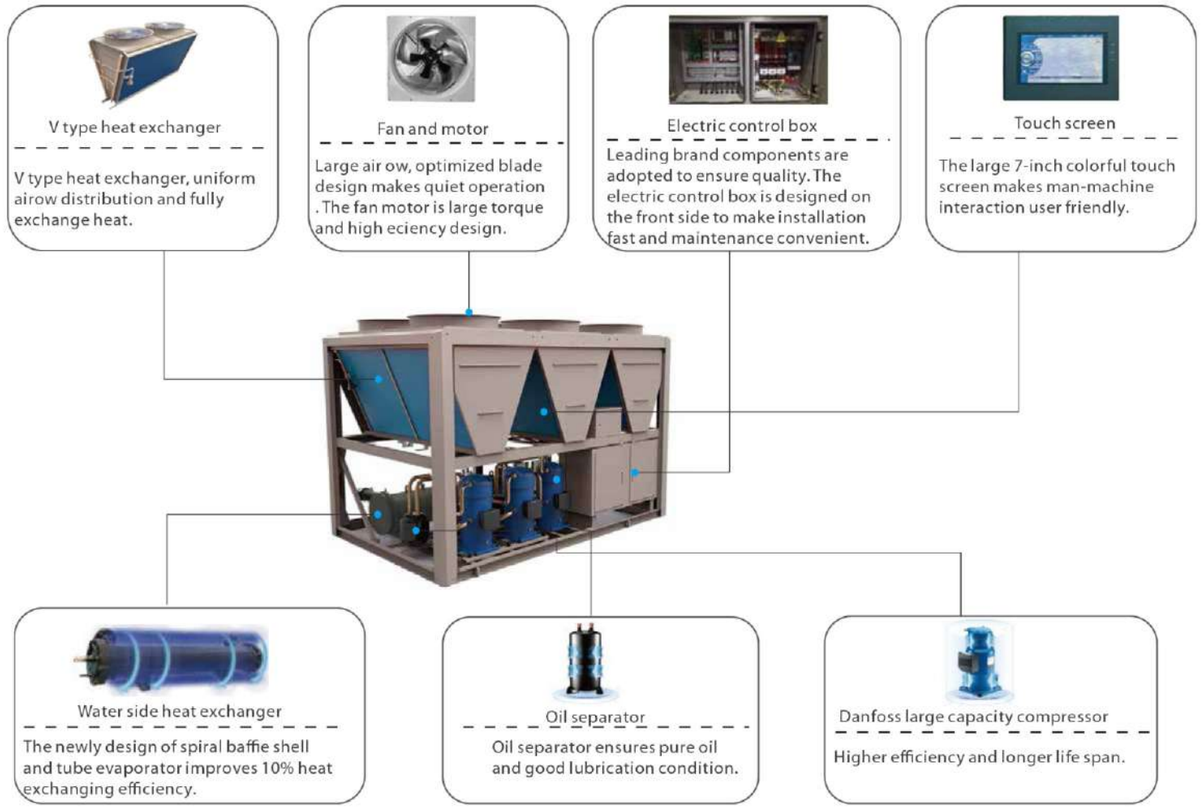
Energy saving

The compressor adopts an intermediate discharge valve design. The system can operate eciently under full pressure ratio to achieve high operating eciency.





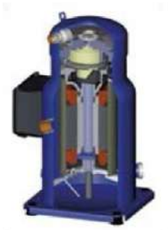
Unit structure



Quiet operation

High eciency and low noise fan design.
The fan impeller is optimized with professional ow eld software to ensure good aerodynamics and a larger noise, improving the heat exchange on the air side.
The noise reduction box for the compressor runs the whole unit at 5 to 10dB(A) quieter, totally about 68~76dB(A).

Low noise fan



Low noise compressor

Noise reduction box for compressor (standard for 60Hz and optional for 50Hz unit)

Air cooled screw chiller

air cooled screw chiller is designed to meet current and future requirements in terms of reliability, energy eciency and intelligent control. We use the best technologies available today: twin-rotor screw compressor is ideally matched with the EXV,evaporator and condenser are optimally congured for superior heat transfer and unit eciency.

Specications (T1)

LSBLGWXXX/C	Cooling capacity KW	power input KW	COP KW/KW	IPLV KW/KW	Semi-hermetic screw compressor
380V-3Ph-50Hz					
380	376	124	3.03	4.09	Semi-hermetic screw compressor
500	496	159	3.11	4.2	Semi-hermetic screw compressor
600	594	187	3.17	4.29	Semi-hermetic screw compressor
720	720	234	3.07	4.17	Semi-hermetic screw compressor
900	902	285	3.16	4.27	Semi-hermetic screw compressor
1000	996	318	3.13	4.25	Semi-hermetic screw compressor
1200	1203	381	3.15	4.29	Semi-hermetic screw compressor
1420	1419	466	3.04	4.15	Semi-hermetic screw compressor
460V-3Ph-60Hz					
380	376	124	3.03	4.09	Semi-hermetic screw compressor
500	496	159	3.11	4.2	Semi-hermetic screw compressor
600	602	194	3.1	4.19	Semi-hermetic screw compressor
720	720	234	3.07	4.17	Semi-hermetic screw compressor
900	902	285	3.16	4.27	Semi-hermetic screw compressor
1000	996	318	3.13	4.25	Semi-hermetic screw compressor
1200	1203	381	3.15	4.29	Semi-hermetic screw compressor
1420	1419	466	3.04	4.15	Semi-hermetic screw compressor

Lowest total cost of ownership

Reliability, low risk of uncomfortable downtime.
The best parts, Bitzer compressor, Danfoss EXV and Shneider electric.

Environmental responsibility

A more ecient chiller means less power consumption, which reduces greenhouse gas (CO2) emissions.
R134a friendly refrigerant has zero ozone-depletion potential.
High eciency, world class, sustainable and reliable performance.

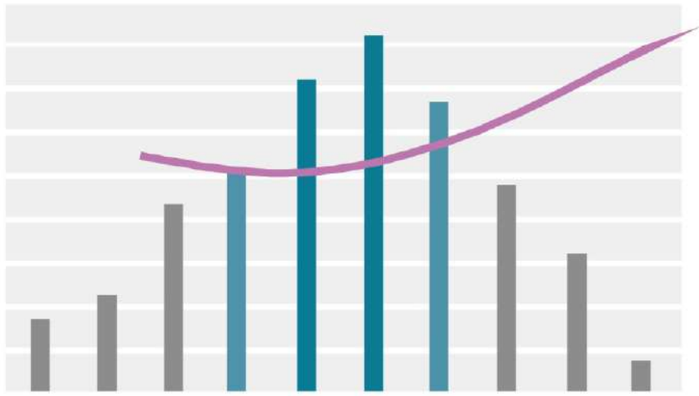
Silent operation

Larger dimension impellers reduce speed leading to less noise.
The lower ambient temperature, the lower fan air ow, then reduce noise.
Intelligent control logic balances the performance and working fan numbers to control noise and power consumption.
Super low-noise model is optional.

Operating cost savings

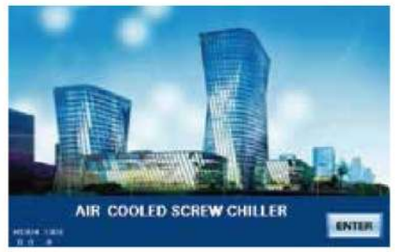
Better IPLV:
Following the AHRI 550/590 calculation, 99% of operating hours are not at full load.
The COP was optimized for 50% ~ 75% part load conditions.
Larger ΔT of cooler reduces HVAC system running cost.

EER	COP	kW/Ton
10	2.9	1.20
11	3.2	1.10
12	3.5	1.00
13	3.9	0.90
15	4.4	0.80
17	5.0	0.70
20	5.9	0.60
24	7.0	0.50
30	8.8	0.40
40	11.7	0.30



User-friendly touch screen

7 inch true color touch screen, easy operation.
Operation status display.
Weekly operation scheduling.
Power-down memory function.
Safety protection.



Water Cooled Screw Chiller(Flooded)

water cooled screw chiller is a classic product that operates on a flooded type evaporator and high efficiency compressor. Optimized system design and enhanced heat exchange efficiency make the unit work best with both full and partial load. Every chiller is fully factory tested and gas charged before shipment. It's an ideal choice for hotels, shopping malls, hospitals, factories, cinemas and other civil architecture air conditioning systems.

AHRI CERTIFIED® www.ahridirectory.org

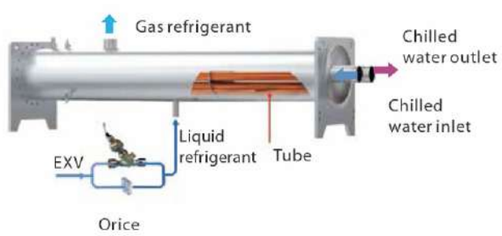
Specifications

LSBLGXXX/MCF	Cooling capacity KW	power input KW	COP KW/KW	Semi-hermetic screw compressor
340	336.6	59.77	5.631	Semi-hermetic screw compressor
440	435.7	76.71	5.679	Semi-hermetic screw compressor
540	534.5	93.65	5.707	Semi-hermetic screw compressor
720	712.7	127	5.611	Semi-hermetic screw compressor
805	797.2	143.7	5.547	Semi-hermetic screw compressor
890	881.5	154.4	5.709	Semi-hermetic screw compressor
1055	1045	185.9	5.621	Semi-hermetic screw compressor
1200	1186	205.2	5.779	Semi-hermetic screw compressor
1300	1286	230.7	5.574	Semi-hermetic screw compressor
1410	1396	248.7	5.613	Semi-hermetic screw compressor
1620	1600	290.3	5.512	Semi-hermetic screw compressor
1780	1780	304.8	5.771	Semi-hermetic screw compressor

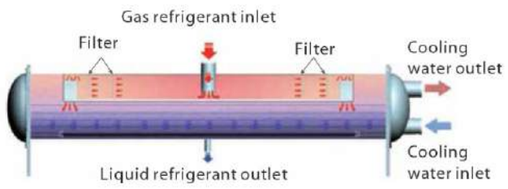
High efficiency heat exchange technology

High eciency shell and tube heat exchanger, 2 passes, straight water pipe, easy to clean. Both sides of cover can be exchanged to meet customer's requirement for condenser.

Evaporator



Condenser

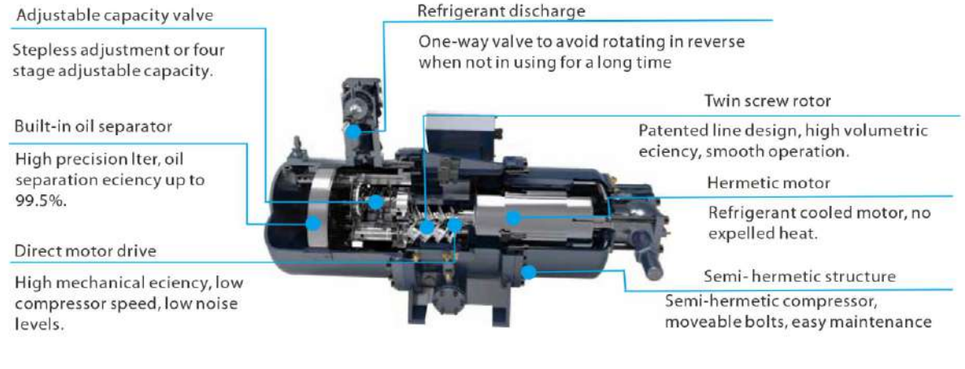


Green chiller

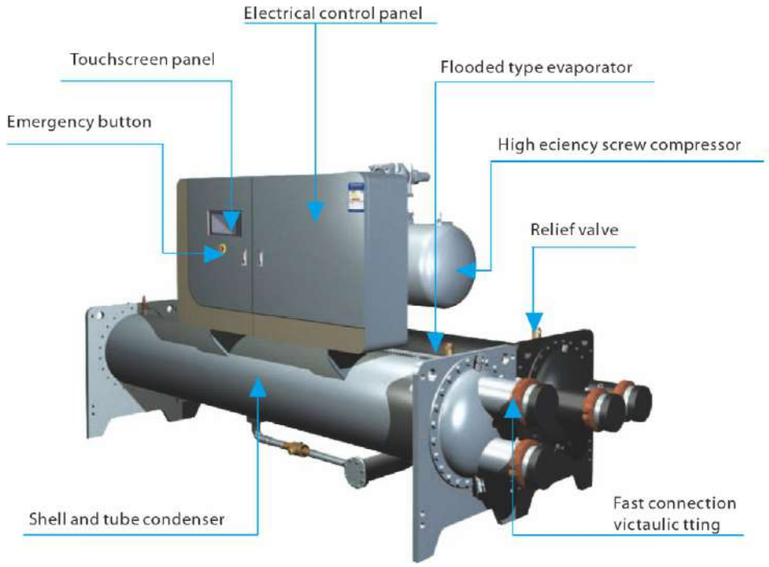
R134a environmentally friendly refrigerant:
Refrigerant is chlorine-free HFC with zero ODP (Ozone Depletion Potential).
Very low GWP (Global Warming Potential).

Stable and Reliable

Advanced twin-rotor screw compressor



Structure



Water Cooled Screw Chiller(Full falling film)

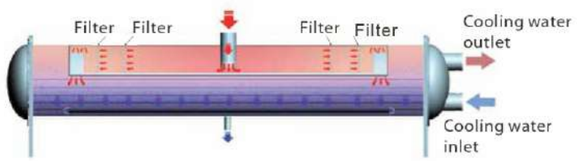
The cooling capacity range of high efficiency full falling film water cooled screw chiller is 70RT to 470RT. The high efficiency full falling film water cooled screw chiller adopts the industry leading twin-rotor screw compressor, environmentally-friendly R134a refrigerant and full falling film evaporation technology to achieve efficiency for high full loads and partial loads. The product employs a number of patented technologies and is reliable, safe and stable.It's an ideal choice for hotels, shopping malls, hospitals, factories, cinemas and other civil architecture air conditioning systems.

AHRI CERTIFIED® www.ahridirectory.org

Model	Cooling capacity RT	Cooling capacity KW	Input power KW	Cooling COP W/W	Cooling IPLV W/W	Compressor Form
70H-A	69.9	245.8	42.33	5.806	7.781	Semi-hermetic screw compressor
90H-A	87.2	306.8	51.2	5.992	7.444	Semi-hermetic screw compressor
100H-A	95.3	335.3	56.31	5.954	7.883	Semi-hermetic screw compressor
110H-A	108	379.8	64.04	5.93	7.859	Semi-hermetic screw compressor
130H-A	130.8	460	78.02	5.895	7.246	Semi-hermetic screw compressor
150H-A	150.7	530	88.64	5.978	7.386	Semi-hermetic screw compressor
170H-A	170.6	599.9	99.85	6.008	7.507	Semi-hermetic screw compressor
200H-A	194	682.2	113	6.037	7.544	Semi-hermetic screw compressor
210H-A	210.2	739.2	128.1	5.77	7.537	Semi-hermetic screw compressor
220H-A	217.3	764.2	128	5.97	8.227	Semi-hermetic screw compressor
230H-A	231.8	815.2	141.2	5.773	7.672	Semi-hermetic screw compressor
270H-A	264.7	930.9	155.6	5.982	7.756	Semi-hermetic screw compressor
300H-A	301.1	1059	177.2	5.975	7.793	Semi-hermetic screw compressor
350H-A	342.2	1203	200.3	6.008	7.935	Semi-hermetic screw compressor
390H-A	381.6	1342	228.4	5.875	7.864	Semi-hermetic screw compressor
420H-A	420.9	1480	256.8	5.763	7.823	Semi-hermetic screw compressor
470H-A	464.1	1632	282.8	5.771	7.928	Semi-hermetic screw compressor

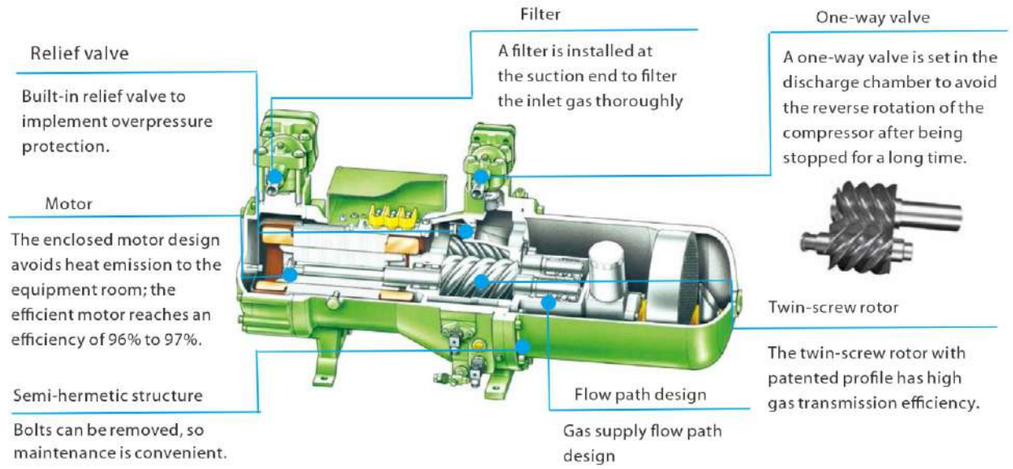
New condenser

It adopts the double-side reinforced high efficiency condenser tube, and the tube arrangement design in the condenser has been optimized.
The new designed multi-turbulence subcooler ensures a supercooling degree above 5°C through the counterflow supercooling of refrigerant, improving the heat exchange performance and heat exchange efficiency.

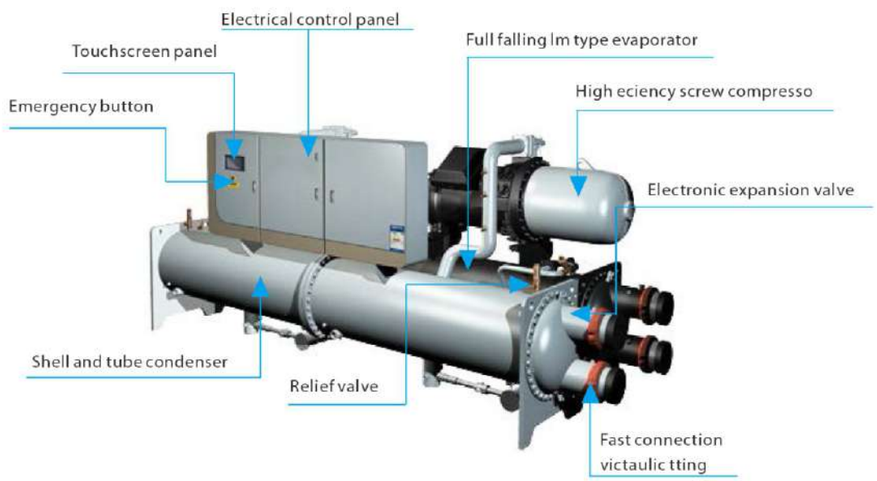


Cutting-edge screw compressor technology

The product adopts a semi-hermetic twin-rotor screw compressor, a screw rotor using a patented profile undergoing the optimized compression process with a German KAPP gear grinding machine, and the surface has been laser-hardened to implement dynamic and static balance correction.
The twin-screw rotors adopt the asymmetric patent design of five to six teeth, reaching the machining precision of micron level and ensuing low noise and long service life.
The compressor adopts the bearing of international famous brand SKF, which has a long service life, ensuring that the continuous operation time of the chiller is at least 50000h.



Product Structure



Water Cooled Centrifugal Chiller

Full falling-lm, dual-stage compression centrifugal chillers, featuring up to 6.7 COP and certied by AHRI.Its capacity ranges from 600RT to 2,200RT, including the high eciency series and super high eciency series, greatly expanding the product's application range. The full falling-lm heat exchange technology and new-generation design of the dual-stage compression have also increased eciency. With patented heat exchange technology, the refrigerant charging volume is up to 40% less than the ooded type. This innovation protects our environment and decreases CO2 emissions signicantly.

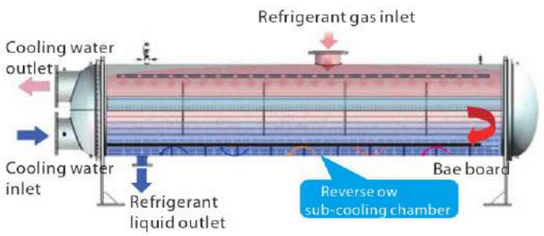
AHRI CERTIFIED® www.ahridirectory.org

Specifications

Model(CCWE****H)	Cooling capacity RT	Cooling capacity KW	Running power KW	COP KW/KW	Motor input power KW	Motor cooled by
600	600	2110	346.9	6.08	490	Refrigerant
650	650	2285	375.3	6.09	490	Refrigerant
700	700	2461	404.3	6.09	490	Refrigerant
750	750	2637	433.4	6.08	490	Refrigerant
800	800	2813	465.7	6.04	490	Refrigerant
850	850	2989	493.6	6.05	560	Refrigerant
900	900	3164	520.9	6.07	560	Refrigerant
950	950	3340	546.4	6.11	560	Refrigerant
1000	1000	3516	576.5	6.1	630	Refrigerant
1100	1100	3868	630.5	6.13	695	Refrigerant
1200	1200	4219	685.9	6.15	760	Refrigerant
1300	1300	4571	744.1	6.14	840	Refrigerant
1400	1400	4922	800.6	6.15	840	Refrigerant
1500	1500	5274	855.7	6.16	930	Refrigerant
1600	1600	5626	916.7	6.14	990	Refrigerant
1700	1700	5977	975.8	6.12	1100	Refrigerant
1800	1800	6329	1022.0	6.19	1100	Refrigerant
1900	1900	6680	1082.0	6.17	1200	Refrigerant
2000	2000	7032	1143.0	6.15	1200	Refrigerant
2100	2100	7384	1187.0	6.22	1320	Refrigerant
2200	2200	7735	1268.0	6.1	1320	Refrigerant

Condenser

The highly ecient heat-exchanger and optimized structure enhance heat exchange performance. The design of a reverse ow sub-cooling chamber with multiple turbulence increases he sub-cooling level and improves performance.



Mechanical Specication

Dual-stage type economizer

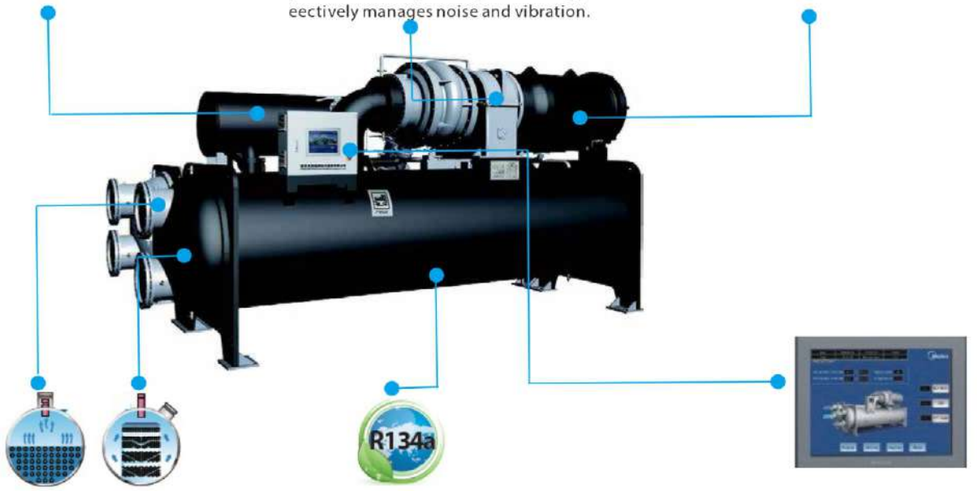
The ecomomizer is used in the dual-stage compressor. Midea uniquely designed the economizer to improve eciency by 5% to 8% compared with the single stage compressor.

Semi-Hermetic centrifugal compressor

The compressor was designed on the Midea advanced design platform, which precisely aligns the impeller and chamber. The compressor is compact and has less moving parts. Double-layer design technology eectively manages noise and vibration.

Gas cooled motor

The motor is cooled by refrigerant, which ensures outstanding performance in various working conditions and a long service life. This high eciency motor has a power factor of up to 97%.



Shell and tube condenser and Full falling-lm type evaporator

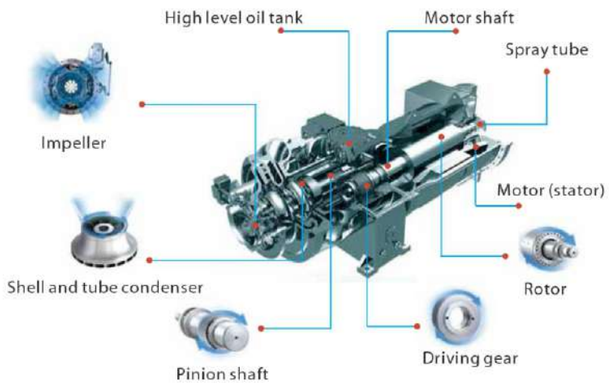
The ecomomizer is used in the dual-stage compressor. Midea uniquely designed the economizer to improve efficiency by 5% to 8% compared with the single stage compressor.

Environmentally friendly refrigeration

R134a is environmentally friendly gas with zero ODP (Ozone Depletion Potential) and low GWP (Globle Warming Potential). The R134a refrigeration enables no-phase-out gas and is a good choice for a large chiller.

Advanced system control and user friendly screen

The system is controled by industry type PLC with multiple functions and high stability. It is open protocol for RS 485 which is compatible for BMS. The control screen is user friendly with a 10-inch colour touchscreen.



Keyless impeller coupling a high-speed shaft

The impeller is coupled to the shaft without a key to eliminate excess stress on the shaft. Ensures the high-speed shaft runs stably and extends its service life

Full falling-film heat exchange technology

Unique spraying technology causes the liquid refrigerant to form a film on the tube surface and then evaporate. This technology increases the heat exchange rate by 3% to 8 % and lowers refrigerant charges by 40%.

Water Cooled Centrifugal

AHRI CERTIFIED®
www.ahridirectory.org

Magnetic Centrifugal Chiller

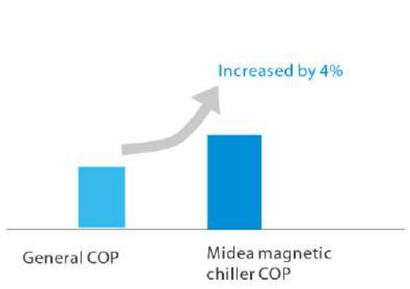
Magnetic centrifugal chiller is the latest generation of oil-free centrifugal chillers with fully-independent intellectual property rights and featuring Midea's core technologies. The series features oil-free, high eciency, stability, reliability, wide-range operation, and low noise, and is environmentally-friendly and cost-saving. It adopts many of the core technologies that Midea has spent years developing, such as the aerodynamic technology, magnetic bearing control, micro-channel refrigerant-cooled VFD, and high-eciency permanent magnet synchronous motors. The series can be used in various buildings, including airports, rail transit, hotels, businesses, and new or reconstructed buildings, providing customers with ecient and energy-saving green building solutions.

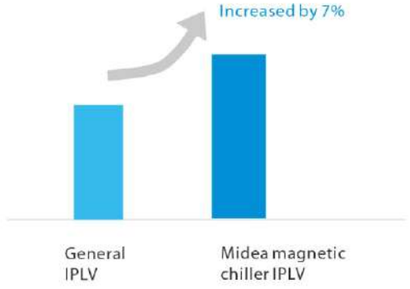
Specifications

Model	Cooling capacity RT	Cooling capacity KW	Power input KW	COP W/W	IPLV W/W	Motor configuration power KW
170EV	170	597.7	93.4	6.398	10.08	165
200EV	200	703.2	107.6	6.532	10.43	165
230EV	230	808.7	126.6	6.388	10.48	165
250EV	250	879	149	5.898	10.61	165
400EV	400	1406	213.5	6.588	10.94	300
450EV	450	1582	253.4	6.243	11.06	300
800EV	800	2813	426.4	6.596	10.43	2×300
900EV	900	3164	489.3	6.467	10.53	2×300

OILFREE AND HIGH EFFICIENCY

Midea magnetic centrifugal chiller boasts magnetic bearing technology, aerodynamic technology, a permanent magnet synchronous motor, and full falling lm evaporation technology. It combines Midea's unique horizontally back-to-back two-stage compression structure with higher energy eciency as compared with the traditional magnetic centrifugal chiller, improving the full-load energy eciency by 4%*, and improving the part-load energy eciency by 7%*.



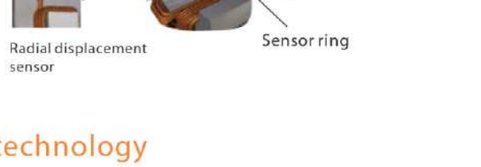


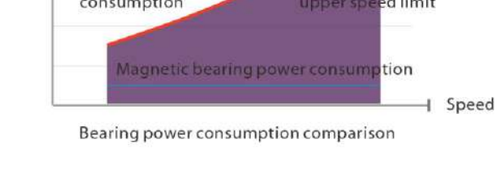
*The above data comes from the average energy eciency comparison of Midea's new and old magnetic chillers.

Magnetic bearing technology

Industrial-level magnetic bearing assembly including the radial magnetic bearing, thrust magnetic bearing and position sensor,and featuring low power consumption, high bearing capacity and high reliability.
Power consumption less than 0.4kW, only 2% to 10% of that of conventional oil bearings.
Breaks through the upper speed limits of conventional oil bearings, signicantly reducing power consumption of the bearing at high speed: the higher the speed, the more energy ecient the magnetic bearing is compared to the oil bearing.


Magnetic bearing component

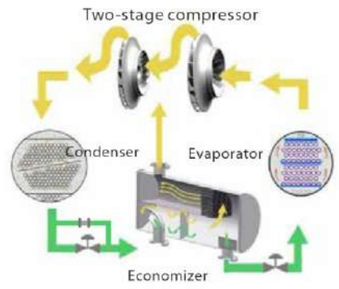




Bearing power consumption comparison

Aerodynamic technology

Aerodynamic design optimizes the overall ow eld eciency and improves the compressor's isentropic eciency.
Unique horizontally back-to-back compression structure, balance the thrust forces for longer life span and improved eciency. 6% higher eciency than single-stage compression




Horizontally back-to-back compression ow eld analysis

Full Falling Film Evaporating Technology

First created the full falling lm evaporator and adopted spray technology to achieve lm evaporation on the surface of the heat exchange tube, greatly increasing overall heat transfer eciency and reducing refrigerant charge by up to 40%.
The patented refrigerant distributor can improve the homogeneity of the liquid to avoid local drying, fully showcasing the performance of the heat exchange tube and increasing unit eciency.


Flooded type

Full falling lm reduced refrigerant charge by up tp 40% compared with the ooded type


Falling lm

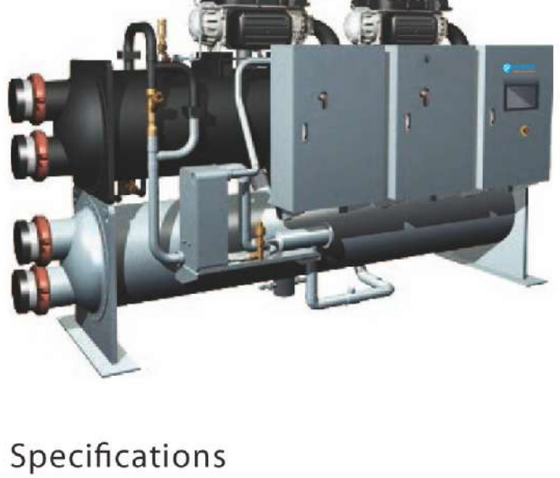
Falling lm reduced refrigerant charge by up to 25% compared with the ooded type


Midea full falling lm

Almost zero liquid level

Patent No: 201120134421.5

Magnetic Full Falling Film Centrifugal Chiller



Magnetic centrifugal chiller is the latest generation of oil-free centrifugal chillers with fully-independent intellectual property rights and featuring Midea's core technologies. The series features oil-free, high eciency, stability, reliability, wide-range operation, and low noise, and is environmentally-friendly and cost-saving. It adopts many of the core technologies that Midea has spent years developing, such as the aerodynamic technology, magnetic bearing control, micro-channel refrigerant-cooled VFD, and high-eciency permanent magnet synchronous motors. The series can be used in various buildings, including airports, rail transit, hotels, businesses, and new or reconstructed buildings, providing customers with ecient and energy-saving green building solutions.

AHRI CERTIFIED®
www.ahridirectory.org

Specifications

Model(CCWD***HV)	Cooling capacity RT	Cooling capacity KW	Power input KW	COP KW/KW	IPLV KW/KW	Motor cooled by
150	150	527.4	91.06	5.792	10.33	Refrigerant
200	200	668	121.6	5.785	9.758	Refrigerant
250	250	879	145.2	6.055	10.17	Refrigerant
300	300	1055	181	5.827	10.19	Refrigerant
350	350	1231	206.3	5.964	9.67	Refrigerant
400	400	1406	239.5	5.872	9.839	Refrigerant
450	450	1582	267.8	5.909	10.13	Refrigerant
500	500	1758	296	5.94	9.428	Refrigerant
550	550	1934	325.9	5.934	9.607	Refrigerant
600	600	2110	364.3	5.791	9.733	Refrigerant

Energy Saving

High-speed permanent magnet motor

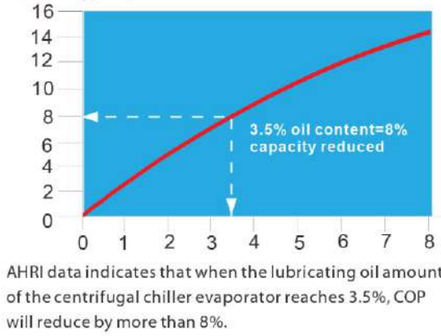
Motor efficiency exceeds 95%, with the highest efficiency of up to 97%.High power density and compact size.
The motor is cooled by refrigerant, high efficiency and long service life.

Two-stage compressing

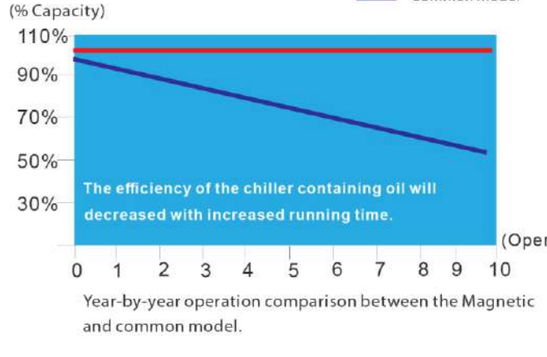
6% higher efficiency than single-stage compression.
Lower speed and higher reliability.

Heat transfer optimization through oil-free design

Adopting magnetic bearing without the need for lubrication. The refrigerating system can realize 100% oil free operation to eliminate the heat transfer loss resulting from lubricating oil.



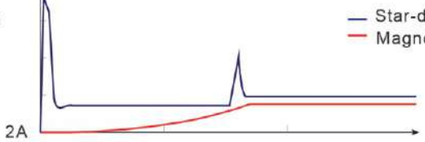
AHRI data indicates that when the lubricating oil amount of the centrifugal chiller evaporator reaches 3.5%, COP will reduce by more than 8%.



Year-by-year operation comparison between the Magnetic and common model.

Zero in-rush current

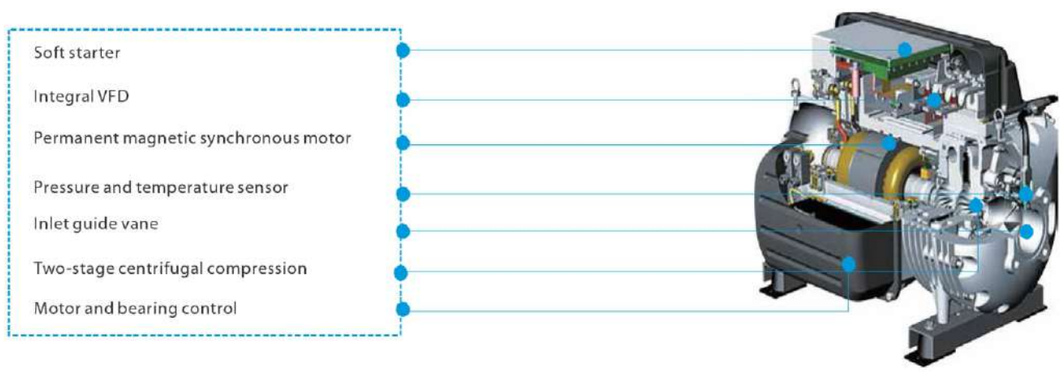
The rotor levitates in the non-contact magnetic bearing when the unit starts. The starting torque is small, a smooth starting process becomes possible in combination with the optimum control of soft start and VFD. The starting current of a single compressor is only 2A, which has no impact on the grid



Technology leading

Magnetic compressor

Magnetic compressor is a miniaturized, highly innovative compressor with magnetic bearing, VFD and permanent magnetic synchronous motor technologies.
Realizes oil-free, effective and safe operations.



AHRI CERTIFIED®
www.ahridirectory.org

Inverter Water Cooled Screw Chiller

Midea's MC efficient inverter full falling film water cooled screw chiller adopts the volume ratio optimization control technology of Midea's independently-developed inverter twin screw along with our environmentally friendly R134a refrigerant and full falling film evaporation technology to achieve a higher partial load efficiency. Compared with traditional fixed-frequency screw units, this newer unit is more efficient, more stable (a 30% improvement) and has lower operating costs. It applies to projects with large system air conditioning load fluctuation and longer partial load running times (for example, in medium and large public buildings and civil buildings like hotels,office buildings, hospitals, factories and shopping malls).

Specifications

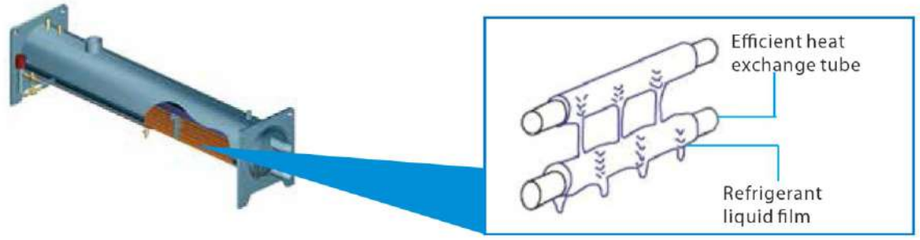
Model	Cooling capacity RT	Cooling capacity KW	Power input KW	Cooling COP W/W	Cooling IPLV W/W	Compressor Form
120HV	116.9	411.1	76.41	5.586	8.56	Semi-hermetic screw compressor
150HV	150.7	530	91.06	5.601	9.163	Semi-hermetic screw compressor
180HV	179.2	630.2	112.8	5.586	8.556	Semi-hermetic screw compressor
200HV	192.4	676.7	120.8	5.601	8.798	Semi-hermetic screw compressor
230HV	223.1	784.6	140.3	5.592	8.919	Semi-hermetic screw compressor
270HV	264.1	928.8	164.6	5.642	8.63	Semi-hermetic screw compressor
300HV	301.8	1061	181.3	5.854	8.944	Semi-hermetic screw compressor
330HV	326.7	1149	203.5	5.645	8.915	Semi-hermetic screw compressor
360HV	354	1245	226.8	5.488	8.907	Semi-hermetic screw compressor
390HV	389.7	1371	241.7	5.67	9.11	Semi-hermetic screw compressor
430HV	426	1498	260	5.761	9.153	Semi-hermetic screw compressor
450HV	444	1562	279.4	5.588	9.074	Semi-hermetic screw compressor

Parallel dual compressor design

The dual-head unit is designed with the parallel system of double compressors, and the total heat exchange area is used to greatly improve the operation efficiency when the single compressor operates. (Customization of non-parallel system accepted)

Full falling film evaporation technology

The pioneering full falling film evaporator reduces the volume of refrigerant required.
Spray falling film technology allows the refrigerant to form a liquid film on the surface of the efficient heat exchange tube to implement film state evaporation and greatly improve the heat exchange efficiency of the evaporator.
The refrigerant distributor is specially designed to avoid uneven liquid distribution and prevent local pipe dryness. (Patent No.: 201120134421.5)



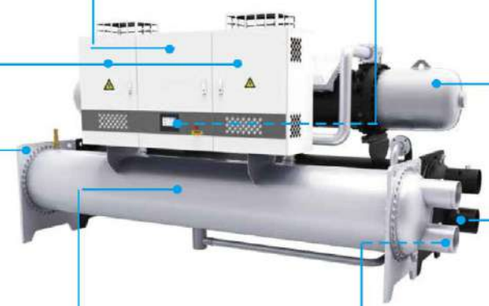
Product Structure

Electric control panel
Midea's flexible sinking design has made a breakthrough in the single plane shape, featuring a lively and futuristic look

Microcomputer control system
Providing auto-diagnosis, adjustment, security protection,remote control and other functions

7-inch color display screen
Easy-to-read unit status; convenient to operate and maintain

Compressor
The compressor screw rotor adopts a new profile, and the air supply and enthalpy feature improved technology that greatly enhances efficiency



Lifting hole
Lifting hole retained to make handling convenient

Condenser
This product features a double-sided reinforced high-efficiency condenser tube to further improve heat exchange efficiency

Water inlet and outlet located on the same side
Easy installation, cleaning and maintenance

Evaporator
Specially designed liquid equalization plate to optimize the temperature field and achieve optimal heat exchange efficiency

Inverter Direct-drive Full Falling Film Centrifugal Chiller

Midea's MC efficient inverter full falling film water cooled screw chiller adopts the volume ratio optimization control technology of Midea's independently-developed inverter twin screw along with our environmentally friendly R134a refrigerant and full falling film evaporation technology to achieve a higher partial load efficiency. Compared with traditional fixed-frequency screw units, this newer unit is more efficient, more stable (a 30% improvement) and has lower operating costs. It applies to projects with large system air conditioning load fluctuation and longer partial load running times (for example, in medium and large public buildings and civil buildings like hotels,office buildings, hospitals, factories and shopping malls).

Specifications

Model	Cooling capacity RT	Cooling capacity KW	Power input KW	COP KW/KW	IPLV KW/KW	Motor cooled by
250	250	879	141.2	6.224	9.341	Refrigerant
300	300	1055	165.3	6.391	9.589	Refrigerant
350	350	1231	193.1	6.386	9.736	Refrigerant
400	400	1406	224.2	6.272	10.51	Refrigerant
450	450	1582	247.2	6.401	10.62	Refrigerant
500	500	1758	276.6	6.356	10.59	Refrigerant
550	550	1934	310.1	6.236	10.69	Refrigerant
600	600	2110	331.3	6.37	9.32	Refrigerant
650	650	2285	357.2	6.4	9.63	Refrigerant
700	700	2461	378	6.51	9.99	Refrigerant
750	750	2637	407.5	6.47	10.17	Refrigerant
800	800	2813	442.1	6.36	10.2	Refrigerant
850	850	2989	460.7	6.49	10.16	Refrigerant
900	900	3164	482.2	6.56	10.37	Refrigerant
950	950	3340	513.3	6.51	10.4	Refrigerant
1000	1000	3516	538.8	6.53	10.56	Refrigerant
1100	1100	3868	591.8	6.54	10.36	Refrigerant
1200	1200	4219	641.7	6.58	10.57	Refrigerant
1300	1300	4571	698	6.55	10.69	Refrigerant

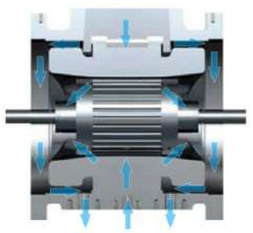
Technology Leading

360° motor cooling technology

The motor is cooled by the refrigerant, with liquid supply and gas return at the bottom, thus high eciency.

Cooling method eliminates the potential for shaft seal leaks and refrigerant/oil loss.

The motor adopts F-level insulation design, with three PTC temperature switches preset in the winding to ensure constant safety.



Horizontally back-to-back compression technology

VS

Midea horizontally back-to-back impeller

Midea rst developed the patented horizontally back-to-back compression technology with crossover pipe structure.
Balance the thrust forces for longer life span and improved eciency by less seal leakage and no gear loss.

Traditional serial impeller

The traditional two-stage centrifugal impellers are arranged in serial to the same direction, and the axial forces on the two impellers are from the same direction and overlapped.
More stress on thrust bearing, cause mechanical damage, and require higher reliability of bearing.

Unit Member

VFD panel
Unit-mounted and free standing are available.

Horizontally back-to-back compressor

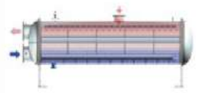
Condenser with integral economizer (patented)
250-550RT: built-in economizer;
600-1300RT: external economizer

Full falling lm evaporator (patented)

R134a
Environmentally friendly refrigerant

Inverter motor

Color touch screen



Condenser with integral sub-cooler

Cooling Tower

Cross FLow Type

- FRP Casing with HDG or Stainless Steel Structure
- Optional steel or stainless steel casing- Single cell water flow rate: 80-1000m3/h
- Available for Single Cell & Multi Cells
- Factory Assembled or Field Erected

Counter Flow Type

- FRP with HDG / Stainless Steel Structure
- Single cell water flow rate: 6-1000 m3/h- Low Drift models comply AS/NZ3666 is available
- Available for single cell & multi cells
- Factory Assembled or Field Erected

Closed Circuit Type

- Crossflow closed circuit type- FRP casing with HDG or stainless steel structure
- Optional steel or stainless steel casing
- Single cell water flow rate: 61-317m3/hr
- Factory Assembled or Field Erected

Advantages

Long Service Life

The MXH series's standard FRP construction, enables corrosion-free for long service life. Also available with optional HDGS (G235 hot dipped galvanized steel) and SS-304 or SS-316 (Stainless Steel) for superior corrosion resistance.

Low Maintenance

Mmotors and drive components are located below the fan blades, with easy access from service platform. Nozzle-free water distribution system. Sealed bearings rated for L10-80,000 hours ensure a trouble-free,almost maintenance free, service life.

Low Energy Consumption

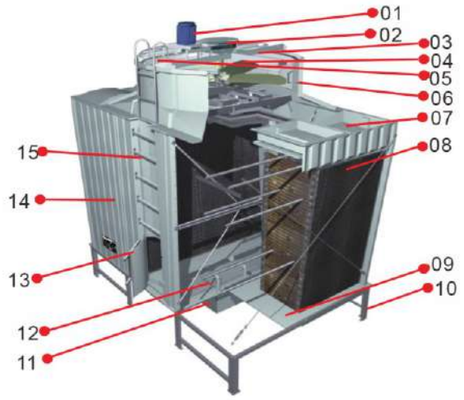
Maximizing energy saving is at the core of every MESAN product. Low energy consumption is an important variable when pursuing LEED certification. The MXH series has the lowest motor kW rating per ton of capacity in the market. All models are fully ASHRAE-90.1 -2016 compliant, largely exceeding this standard's m3/h/kW requirements.

Low water consumption

Low fan speed plus very efficient drift eliminators contribute to reduce the water consumption of the MXH towers. Water conservation is an important variable to earn LEED points.

Cross FLow Type

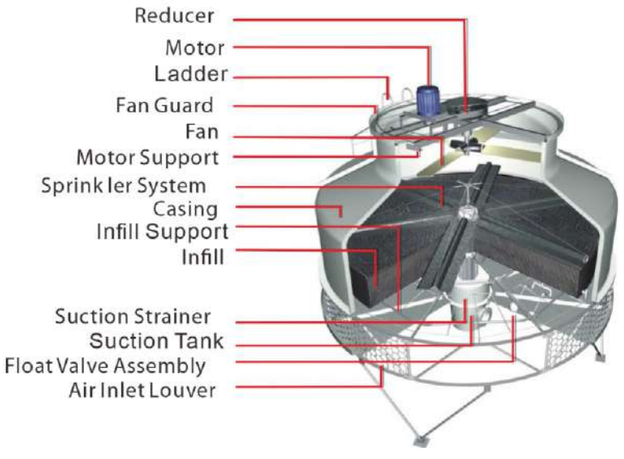
01.Motor
02.V-Be lt Reducer
03.Motor Suppor
04.Fan
05.Fan Guard
06.Fan Stack
07.Hot Water Basin
08.Infill
09.Cold Water Basin
10.Lower Frame
11.Suction Tank
12.Water Outlet
13.Access Door
14.Casing
15.Ladder



Optional Accessories

- HDG5 Construction
- 5tainless-steel Construction
- Motors
- 5uper Low Noise Fan
- Gear Reducers
- Discharge 50und Attenuators

Counter Flow Type



Closed Circuit Type

Optional Accessories

Motor	High Efficiency Motor Two Speed Motor VFD Motor
Fan	FRP Fan Low Noise Fan
Reducer	180° Gear Reducer 90° Gear Reducer
Infill	ASTM PVC Infill High Temperature PP Infill

New Energy

Off-Grid Solar Air Conditioner

100%DC Inverter System = No Waste of Energy

Desert Reclamation

Island Construction

Outdoor

Btu	Cooling Capacity			RatedPower	SolarController	Solar Panels	SolarPart Batteries	Fuse
	W	Hp	Ton	W	PWM/MPPT	(Polycrystalline)	(Gel)	
9000	2600	1	0.75	660	48V/30A	275W*4PCS	12V125Ah*4PCS	30A
12000	3500	1.5	1	960	48V/40A	275W*6PCS	12V150Ah*4PCS	40A
18000	5000	2	1.5	1420	72V/40A	275W*9PCS	12V150Ah*6PCS	40A
24000	7000	2.5	2	1830	96V/50A	275W*12PCS	12V150Ah*8PCS	40A

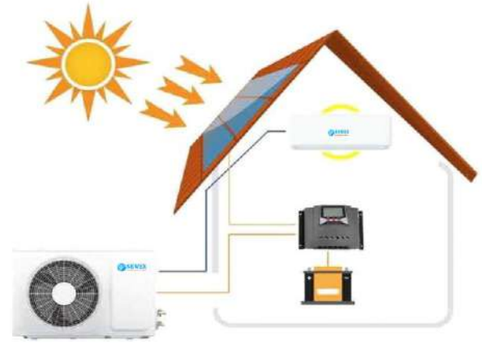
DC Off-Grid Solar Inverter Air Conditioner Syste

Components:

- Off-grid solar a/c Indoor Unit
- Off-grid solar a/c Outdoor Unit
- Remote Control
- SolarPanels
- Batteries
- Solar Controller PWM or MPPT
- Air Switch
- Fuse Protection
- Lightening Arrester

SOLAR AIRCONDITIONER

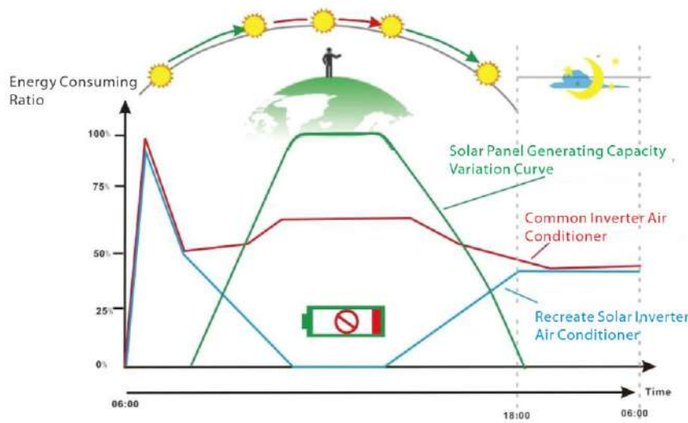
Eco friendly air conditioner is becoming a necessity of modern life, which can greatly improve the quality of lifefor people.
Nilan SolarAirConditioner (Aircon) takes the solar energy as the power source and is an environment friendly & energy saving product. It can help people enjoy the air conditioner freely and economically in places short of power supply or with the problem of high electricity rates



TECHNICAL FEATURES

Nilan Solar Air Conditioner adopts the Full D C (6D components) and inverter technologies, which greatly improve the reliability and efficiency of the solar air conditioner. Its main technical features are as follows:

1. Lo w power consumption and high energy saving efficiency;
2.All DC:dc compressor, dc motor , dc valve;
3.Variable speed air compressor to achieve the soft start and quick cooling / heating;
4.Wider working frequency range and D C working voltage range;
5.Smooth running with low noise level;
6.The working voltage for off grid solar air conditioner system is 48V/72V/96V D C which iseasy to configure the system.
7.Safety protection arrangements are adopted;
8. AP P control and power saving indicator are optional.



Inverter Tech : EnergySaving+Comfortable

Hybrid Solar Air Conditioner

Hybrid so larinverter air conditioned embraces Solar DC and Utility AC as hybrid power input. This unique technology requires n o inverter, no batteries, n o controllers. Just plug in the solar panels to start saving u p to 97%~100% cooling or heating costs during the daytime!

Btu	CoolingCapacity W	Hp	Ton	RatedPower Consumption(W)	Solar Panel	SolarPart Power	Energy
9000	2600	1	0.75	660	275W/31.6V *3pcs	825W	60%~100%
12000	3500	1.5	1	960	275W/31.6V *4pcs	1100W	60%~100%
18000	5000	2	1.5	1420	275W/31.6V *6pcs	1650W	60%~100%
24000	7000	3	2	1830	275W/31.6V *8pcs	2200W	60%~100%

Hybrid Solar Inverter Air Conditioner System

Components:

- Acdc hybrid solar a/c Indoor Unit
- Acdc hybrid solar a/c Outdoor Unit
- Remote Control
- SolarPanels
- Air Switch
- Fuse Protection
- Lightening Arrester

LOW COST, EASY INSTALLATION, FASTPAYBACK!

- 100 % efficiency of solar power consumption, not a bit of energy waste
- Solar D C and city electricity as hybrid power input, automatic and seamless switching between with Solar input as priority to cut the most of electricity bills
- Full D C system, high efficiency, SEER u p to 23
- Wide range of A C input: 50/60Hz, 160V-270V
- Wide range of ambient temperature: -15. ~55
- No controller/inverter/batteries needed, lower investment than D C off-grid type
- Eco-Friendly R410a Refrigerant
- Easy installation, n o difference with electric a/c installation Intelligent power supply display, real-time update of power input
- Regular solar panels can be used, 3~10pcs can be freely embraced
- Washable Filters
- Digital Wireless Remote

SOLAR AIR CONDITIONER

Nilan Solar Air Conditioner embraces both inverter technology (VRF) and Full D C technology in the products, realizing that the solar air conditioner can be directly generated by D C power via solar panels. Itcan be configured into different system solutions according to the specific application requirements, such as hybrid solar air conditioner system, off grid solar air conditioner system, pure solar air conditioner system, PV-Wind hybrid solar air conditioner system, ect.

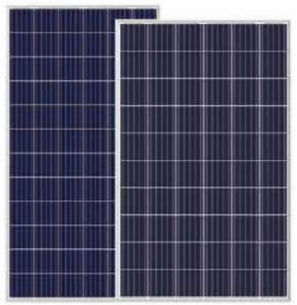
Solar DC RV Air Conditioner

Solar DC RV air conditioner, also called parking air conditioning, parking cooler, truck sleeper, was designed for customers w h o want to use an electric compressor driven by solaror batteries when the engine is turned off, or when there is no electricity supplied.

Reducing CO2 emissions: RV, trucks and other vehicles are not required to keep the engine on when they are parked or stopped for loading cargoes. Less emission, better world !

- Save the fuel and cost
- Without noise and emission, enjoying a homelike space with cooling,comfortable, peace, healthy and safe environment
- Safe journey on the way
- Easy installation
- 12000, 15,000 Capacity with or without a heat pump
- Variable Speed BLDC Compressor
- AllD C = N o Inverter
- Hi-SEER D C Heat P u m p
- Daytime and Night Time Operation
- Uses Standard Deep Cycle Batteries
- Works with Standard PV Panels
- Optimized forSolar Air Conditioning

High Efficiency Solar Panels



Solar Panel for Solar Air Conditioner System

Electrical Characteristics (STC)

ModuleType	SRP-260-6PB	SRP-265-6PB	SRP-270-6PB	SRP-275-6PB
Maximum Power at STC -Pmp(W)	260	265	270	275
Open Circuit Voltage -Voc(V)	38	38.3	38.5	38.8
Short Circuit Current -Isc (A)	8.72	8.83	8.94	9.02
Maximum Power Voltage-Vmp (V)	30.9	31.1	31.3	31.6
Maximum Power Current -Imp(A)	8.42	8.53	8.63	8.71
Module Efficiency STC-ηm (%)	15.98	16.29	16.6	16.9

MPPT

Description:

RC-MPPT isa kind of intellectual, high-efficiency and high-speed solar controller. Itadopts advanced MP P T arithmetic which mak e itabsorb as large energy as possible from solar array. Itcan be used in the 3 K W off-grid solar system and promote 3 0 % efficiency.

Features:

Advanced MP P T technology with efficiency u p to 99.5% Max. efficiency 98%, and full load efficiency 9 7 %Adapt to variable kind of battery Intellectualdischarge control 3-state charge me t hod prolongs the life of battery LC D display Multiple protection functions: over discharge, over load, short circuitetc.

PWM

Features:

1.Adopt high performance MC U
2.Excellent design of cooling and E M C
3.PW M charging mo d e
4.Adopt MOSFE T as switcher avoiding mechanical switching
5.Humanized battery capacity display
6.Adapt sealed, unsealed and g e m battery
7.Temp. compensation
8.Parameter setting function
9.LC D displays working states

Description:

This kind solar controller isapplied in off-grid solar system to control charging and discharging.
Its use in system can prolong the lifetime of battery and protect the whole solar system.

Smart Homes Start From Safety and Comfort

Smart Light

Smart Curtain

Smart Door Lock

Smart Gateway

Scenes Panel

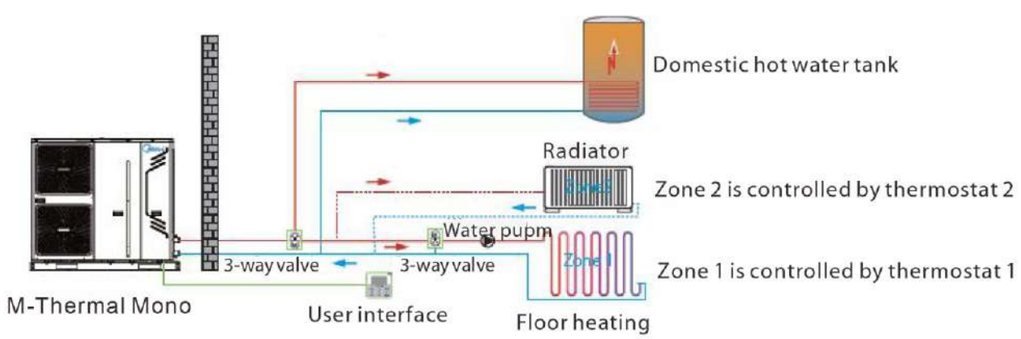
Smart Speaker

M-Thermal Heat Pump Mono

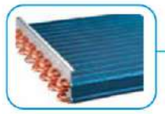
- Air Sourced
- Total heat solution
- Heating, cooling and domestic hot water
- DC Inverter Technology

Model	Power supply V/Ph/Hz	Heating KW	Cooling KW	**Electric heater Optional** KW	Net dimensions (WxHxD)
NHP-5/2ND	220-240/1/50	4.58	4.55	3.0	1210×945×402
NHP-7/2ND	220-240/1/50	6.55	6.45	3.0	1210×945×402
NHP-9/2ND	220-240/1/50	8.67	8.11	3.0	1210×945×402
NHP-10/5.5ND	220-240/1/50	10.43	10.25	4.5	1404×1414×405
NHP-12/5.5ND	220-240/1/50	12.17	12.19	4.5	1404×1414×405
NHP-14/5.5ND	220-240/1/50	14.76	14.61	4.5	1404×1414×405
NHP-16/5.5ND	220-240/1/50	16.33	14.82	4.5	1404×1414×405
NHP-12/5.5NSD	380-415/3/50	12.37	12.64	-	1404×1414×405
NHP-14/5.5NSD	380-415/3/50	14.1	14.03	-	1404×1414×405
NHP-16/5.5NSD	380-415/3/50	16.3	15.1	-	1404×1414×405

M-Thermal Mono System



High eciency and wide operating range

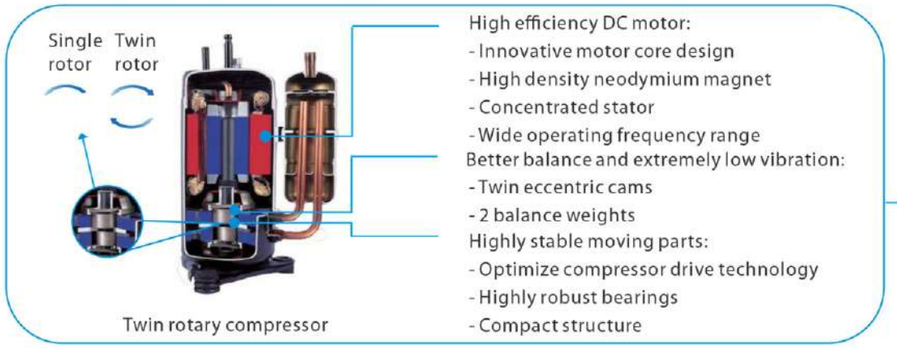


Finned tube heat exchanger
Air side heat exchanger's inner-threaded copper tubing smoothes refrigerant flow to optimize heat exchange efficiency.
Hydrophillic coating improves condensate drainage, reducing frost accumulation and improving corrosion resistance

Brushless DC fan motor
Stepless fan motor control enables super-quiet fan operation and minimizes power consumption.

Hydronic module
Intergrated hydronic module with DC water
pump and backup electric heater.

Twin rotary compressor
Twin rotary DC inverter compressor uses 30% less power than traditional scroll compressors whilst also giving a wider operating frequency range, enabling precise control and reducing running noise levels.



Easy installation and easy maintenance

All hydronic components are located within the outdoor unit.
Refrigerant system entirely contained within outdoor unit - no additional refrigerant piping required.
Compact structure, easy for transportation and installation.
Two-door design for easy access to internal components for easy maintenance

Door 1: Access to hydronic components and electrical parts

Door 2: Access to refrigerant components and electrical parts.

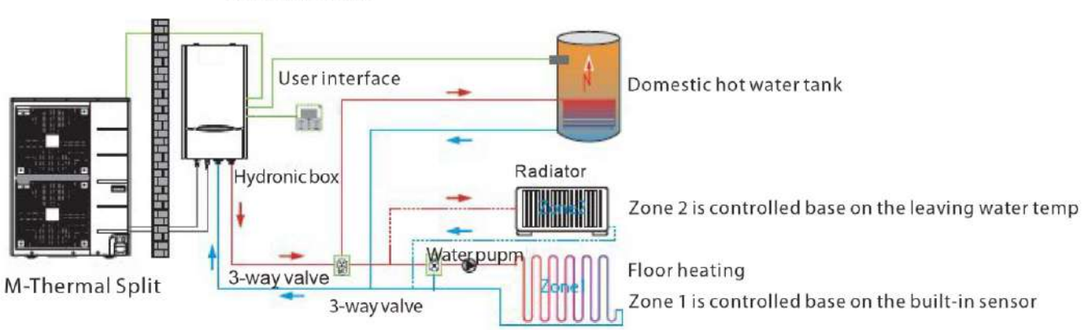
NEWEX

M-Thermal Heat Pumps Split

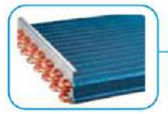
- Air Sourced
- Total heat solution
- Heating, cooling and domestic hot water
- DC Inverter Technology

Model NHP-	Power supply V/Ph/Hz	Heating KW	Cooling KW	Net dimensions (WxHxD)
NHS-4ND	220-240/1/50	4.04	4.1	960x860x380
NHS-6ND	220-240/1/50	6.1	6.2	960x860x380
NHS-8ND	220-240/1/50	8	8	1075x965x395
NHS-10ND	220-240/1/50	10	10.5	900x1327x400
NHS-12ND	220-240/1/50	12.1	11.7	900x1327x400
NHS-14ND	220-240/1/50	14.2	13.1	900x1327x400
NHS-16ND	220-240/1/50	15.4	13.8	900x1327x400
NHS-12NSD	380-415/3/50	12.1	12	900x1327x400
NHS-14NSD	380-415/3/50	14.1	13.5	900x1327x400
NHS-16NSD	380-415/3/50	15.5	14.5	900x1327x400

M-Thermal Split System



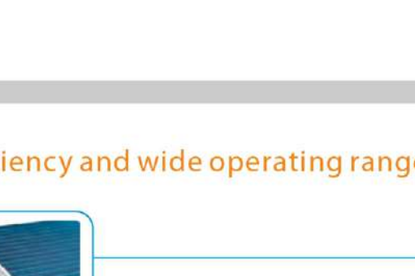
High eciency and wide operating range



Fin-coil heat exchanger
9.5 inner-threaded copper pipes optimize heat exchange efficiency. Plate type hydrophilic aluminum foil used for air side heat exchange, which is easy for water drain and prevents forest to a great extent. Blue coating increases the resistance against corrosive agents, enhance durability.

Brushless DC fan motor
BLDC fan motor with stepless control helps to meet heating and cooling demands with low noise fan, super quiet operation, as well low power consumption.

DC inverter compressor
The newly designed twin rotary DC inverter compressor with permanent magnet brings low working sound, wide working frequency and precession control.The upgraded DC motor power system of inverter model forms a full DC frequency conversion system and dramatically reduces power consumption by more than 30%.



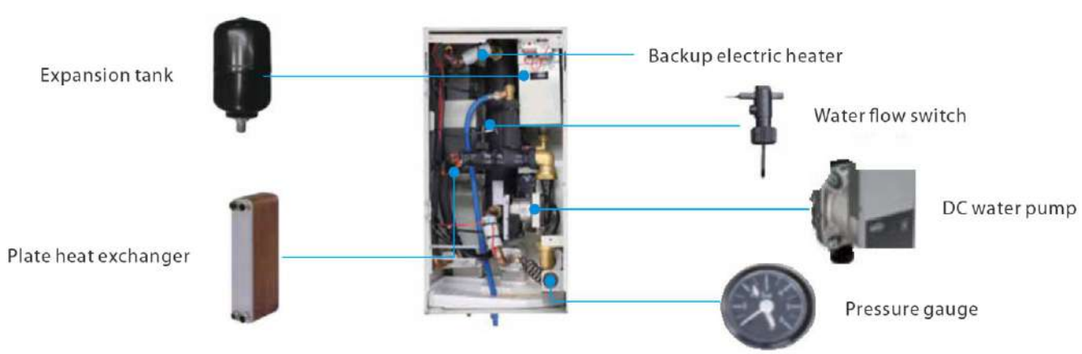
Compressor (Twin Rotary) structure

High efficiency DC motor:
- Creative motor core design
- High density neodymium magnet
- Concentrated type stator
- Wider operating frequency range

Better balance and Extremely Low Vibration
- Twin eccentric cams
- 2 balance weights

Highly Stable Moving Parts:
- Optimal material matching rollers and vanes
- Optimize compressor drive technolog
- Highly robust bearings
- Compact structure

Hydronic box



Refrigeration

Refcomp Piston Compressor

Focusing on commercial refrigeration compressor
25 years of expenence in semi-hermetic
compressor manufacture.
The classical tradition, manufacturing
Art is bom,and innovation is endless.

Reciprocating Compressors	Single4 Stage SP Series	3-70Hp,17-222m³/h,50Hz
	2-Stage SB Series	12-30Hp,43-103m³/h,50Hz

Housing

- Working pressure:28bar;
- Optimized design of suction air ways low suction resistance and sufficient cooling of motor; straight -through middle air runner,reduction of the loss along the way; little discharge throttling loss and low energy consumption;
- Small size,integration of the filter,shut-off valve and temperature sensor,and compact structure.

Bearing

- Combination of tlle sliding bearing (bush) and thrust gasket,avoiding the axial/radial wear and overload of the crankshaft.
- High accuracy,wear resistance and low noise.
- Sliding body of high precision and wear resistance ,good lubrication and design life of 50,000h to 80,000h.

Motor

- Partial winding or star， with small start current and low energy comsumption in operation.
- Various kinds of operating voltage and frequency, meeting voltage requirements of various areas;
- Special custom material, compatible with various refrigerants such as R22,R407C,R134a,R404Aand R507;
- Special structure design and space layout. The motor can be cooled efficiently with the overflow refrigerant gas belween the suction ShLrt-of valve and píston suction side.

Motor protection

- INT69 and INT69B2 protective modules are used to protect the motor from over high temperature, reversal and phase loss.
- 6 PTC tliermistors in series are used 10 prevent the motor burnt out due to high temperature;
- The system operation information is tracked for real-time feedback of the motor and system operation state

Refcomp ACO Condensing Unit

ACO Series (Air Cooled Open Type)

Italy Refcomp Semi-Hermetic Compressor Type
From 5HP ~ 50HP (High & Middle Temp Series)
From 3HP ~ 40HP (Middle & Low Temp Series)

Italy Refcomp High & Middle Temperature Series

Evap. Temp. (°C)	Capacity(HP)	Power	Refrigerants
-20 °C ~ 5 °C	5/6/8/9/10/12/15/20/22/25/30/35/37/40/50	380V/3PH/50Hz	R404A
-40 °C ~ -5 °C	3/4/5/6/6/8/10/12/15/18/22/25/27/30/40	380V/3PH/50Hz	R404A

Widely Application

Widely used in hotels, restaurants, health, food, agriculture and medicine industry.

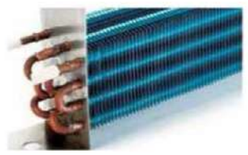
Reliable components(Danfoss brand, Emerson brand, etc.) for longer life, minimum maintenance needs.

Features

Law noise fan driven by maximum efficient motors, are statically and dynamically balanced.

Complete warranty system for spare parts and the whole units.

International famous brand air cooled condenser (LUVATA), to provide optimum heat exchange capability.



Refcomp GM Monoblock

GM Series Monoblock is applicable for multiple application.Scenarios Standard units can be installed by stacking up. The steel plates of the condenser and evaporator of the unit are coated with epoxy powder. Full-hermetic piston compressor designed for R404A.

Model	HP of Compressor	Electrical Requirement	Rated Airflow of Condenser	Rated Airflow of Evaporator	Installed Power
Low Temperature Monoblock Parameters(-15°C~-25°C)					
BGM1008AS01	0.8HP	220V/1P/50Hz	630m3/h	745m3/h	0.636KW
BGM1010AS01	1HP	220V/1P/50Hz	630m3/h	745m3/h	0.86KW
BGM1015AS01	1.5HP	220V/1P/50Hz	630m3/h	745m3/h	1.137KW
BGM2015AS01	1.5HP	220V/1P/50Hz	1260m3/h	1490m3/h	1.243KW
BGM2020AS02	2HP	380V/3P/50Hz	1260m3/h	1490m3/h	1.538KW
BGM3027AS10	2.7HP	380V/3P/50Hz	2670m3/h	2670m3/h	1.836KW
BGM3030AS10	3HP	380V/3P/50Hz	2670m3/h	2670m3/h	1.992KW
BGM3040AS02	4HP	380V/3P/50Hz	2670m3/h	2670m3/h	2.539KW
Medium Temp Monoblock Parameters(-5°C~10°C)					
MGM1005AS01	0.5HP	220V/1P/50Hz	630m3/h	745m3/h	0.63KW
MGM1007AS01	0.7HP	220V/1P/50Hz	630m3/h	745m3/h	0.843KW
MGM1010AS01	1HP	220V/1P/50Hz	630m3/h	745m3/h	0.995KW
MGM1012AS01	1.2HP	220V/1P/50Hz	630m3/h	745m3/h	1.141KW
MGM2012AS01	1.2HP	220V/1P/50Hz	1260m3/h	1490m3/h	1.247KW
MGM2015AS01	1.5HP	220V/1P/50Hz	1260m3/h	1490m3/h	1.477KW
MGM2016AS02	1.6HP	380V/3P/50Hz	1260m3/h	1490m3/h	1.78KW
MGM3018SA10	1.8HP	380V/3P/50Hz	2670m3/h	2670m3/h	1.662KW
MGM3025AS10	2.5HP	380V/3P/50Hz	2670m3/h	2670m3/h	2.135KW

Features

Low installation and Operation Cost

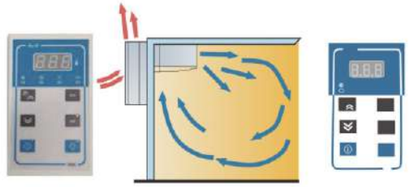
Easy and quick installation, short construction period, less installation materials, and simplified transportation and site management;Mature and reliable defrosting technology; optimized subcooling and superheat technology to improve system efficiency with the lowered energy consumption; Convenient automatic condensate evaporation technology to improve the system efficiency and lower the operation cost for the customer.

High Quality and High Reliability

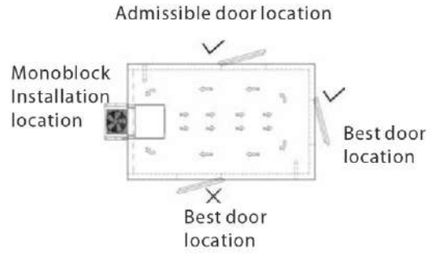
All the wiring and piping, electrical connecting jobs are finished and debugged in the factory; world top level industrial design; World-famous compressors and other compo- nents are chosen, and remote control is tailor made, in order to ensure the safe, table, and high efficiency operation of the monoblock.

Electronic controller is easy to use, and its interface meets various system requirement; Applicable for medium/small cold room. Main functions are as follows:

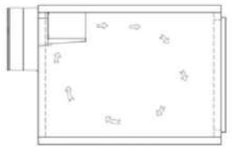
- Temperature controller setting;
- Operating mode setting;
- Auto/manual defrosting;
- Failure warning;
- Cold room open/close lights



Locations of Cold Room Door and Monoblock



Airflow in Cold Room



EA Series Unit Air Cooler

- EAH Series Air Cooler
- EAM Series Air Cooler
- EAL Series Air Cooler

Unit Air Cooler

EA series air cooler is a supporting cooling cooling equipment freon refrigeration unit, by the use of temperature to distinguish: distinguish into EAH, EAM, EAL, three series can be separately applied different libraries temperature, the EAH type air cooler is mainly applied to about 0°C storagehouse; the EAM type air cooler is mainly applied to the -18°C refrigerator; the EAL type air cooler is mainly applied in quick-frozen below -25°C library.

Parameters

- EAH Series Unit Air Cooler, Fin Spacing 4 mm, With Heater, Room Temperature ≥ 0 °C
- EAM Series Unit Air Cooler, Fin Spacing 6 mm, With Heater, Room Temperature ≥ -18 °C
- EAL Series Unit Air Cooler, Fin Spacing 9 mm, With Heater, Room Temperature ≥ -25 °C

Type Explanstion

EA	H	9	2501	A
Series	H: High Temperature M: Medium Temperature L: Low Temperature	Surface (M^2)	Fan Ø (mm) & №	A: 50Hz B: 60Hz

High Quality Modular Cold Storage Kit

Application Fields

Fruits & Vegetables

Apple (-1.1 ~ 4.4 °C)
Peach (-0.6 ~ 0 °C)
Sweet melon (2.2 ~ 4.4 °C)
Pear (0 °C)
Potato (1 ~ 3 °C)

Dairy Products

Raw milk storage (4 ~ 6 °C)
Pasteurized milk (4 °C)
Set yogurt (0 ~ 4 °C)
Stirred yogurt (0 ~ 7 °C

Medicine

Vaccine (0 ~ 8 °C)
Drugs (2 ~ 8 °C)
Blood (1 ~ 5 °C)
Plasma (-20 ~ -30 °C)

Wine

Champagne (5 ~ 9 °C)
Dry white wine (8 ~ 10 °C)
Semi-sweet, sweet red wine (14 ~ 16 °C)
Dry red wine (16 ~ 22 °C)

Meat Processing

Carcass processing (25 °C)
Cooling flushing (-15°C/0 ~ 4 °C)
Portioning and packaging (8 ~ 12 °C)
Quick-freezing storage (-20 °C)
Fresh keeping storage (0 ~ 4 °C)

Mushrooms Growing

Ambient temp. and relative humidity for each stage of mushrooms

Product	Hyphal growth	Fruiting body growth
Agaricus bisporus	20~25 °C / 70~80 %	14~18 °C / 85~95 %
Black fungus	22~28 °C / 85~95 %	20~24 °C / 90~95 %
White fungus	22~26 °C / 60 %	23~25 °C / 85~95 %
Pleurotus eryngii	20~26 °C / 70 %	14~16 °C / 70~90 %

Cold Room(-5 °C ~ 10 °C)

Model	Interior Volume (M^3)	Interior dimensions (L*W*H)mm	Exterior dimensions (L*W*H)mm	Monoblock Unit Model	Electricity System
MGM-Model-12	12	2460*2080*2280	2660*2280*2480	MGM2016AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-16	16	3420*2080*2280	3620*2280*2480	MGM2016AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-21	21	4380*2080*2280	4580*2280*2480	MGM2016AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-25	25	5340*2080*2280	5540*2280*2480	MGM3025AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-24	24	3420*3040*2280	3620*3240*2480	MGM3025AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-30	30	4380*3040*2280	4580*3240*2480	MGM3025AS	380V/3P/50Hz or 220V/3P/60Hz
MGM-Model-37	37	5340*3040*2280	5540*3240*2480	MGM3025AS	380V/3P/50Hz or 220V/3P/60Hz

Freezer Room(-25 °C ~ -15 °C)

Model	Interior Volume (M^3)	Interior dimensions (L*W*H)mm	Exterior dimensions (L*W*H)mm	Monoblock Unit Model	Electricity System
BGM-Model-12	12	2460*2080*2280	2660*2280*2480	BGM3030AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-16	16	3420*2080*2280	3620*2280*2480	BGM3030AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-21	21	4380*2080*2280	4580*2280*2480	BGM3030AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-25	25	5340*2080*2280	5540*2280*2480	BGM3040AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-24	24	3420*3040*2280	3620*3240*2480	BGM3040AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-30	30	4380*3040*2280	4580*3240*2480	BGM3040AS	380V/3P/50Hz or 220V/3P/60Hz
BGM-Model-37	37	5340*3040*2280	5540*3240*2480	BGM3040AS	380V/3P/50Hz or 220V/3P/60Hz

Cam-lock type PU sandwich panel easy to install

The panels with cam-lock connection, easy for connect and disconnect, no need to fix by rivets, more stable and good sealing, can be easily assembled without the need for special tools.