



Trane - by Trane Technologies (NYSE: TT), a global climate innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit [trane.com](https://trane.com) or [tranetechnologies.com](https://tranetechnologies.com).

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VRF-SLB041-EN 09 Jan 2023



## DC Inverter VRF Air Conditioning System





Office building  
Building area : 161,000 m<sup>2</sup>  
Product : GEN  
Capacity: 5,474 HP



Chain store  
Building area : 300 ~ 400 m<sup>2</sup>  
Product : GEN, Odyssey  
Capacity : 100 sets



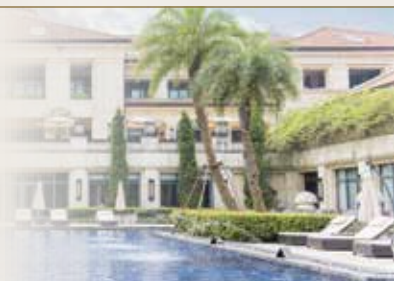
Hospital  
Building area : 70,000m<sup>2</sup>  
Product : GEN  
Capacity : 1,442 HP



Metro  
No. of stations 26  
Product: GEN3, TVR II  
Capacity : 1,276 HP



Hotel  
Product : GEN, Illusion  
Capacity : 8,308 HP



Villa & apartment  
Developer : Country Garden



Trane is well positioned to lead the industry in creating comfortable, sustainable and efficient environments with exceptional products.

Trane, a US-based air conditioning expert, has been committed to developing energy-efficient, comfortable and environmentally friendly air conditioning products and system application services since its establishment in 1913. Trane is now a major global supplier of heating, ventilation, air conditioning and building automation systems. Trane is committed to creating and sustaining the Group's philosophy of safety, comfort, efficiency and environmental protection, providing customers with a full range of high-quality HVAC and control systems, as well as comprehensive engineering installation, building management and parts support services.

- Energy efficiency
- Reliable quality
- Comfortable and eco-friendly



## World-class R&D capability provides a strong guarantee of high quality

In China, we have the R&D capability in pace with the world to manufacture a broad range of VRF products adapted to the Chinese market, making the product line more complete.



6 R&D centers and 21 technical facilities around the world



More than 1,600 engineers working on technical improvement



The largest engineering and technology laboratory in the industry



### R&D laboratory

The Asia-Pacific R&D Center has established a R&D laboratory with a total investment of more than RMB 100 million in Taicang facility, which is second only to Trane's US laboratory in terms of scale and capability, and is a leading R&D laboratory in the industry in China and Asia.



### Postdoctoral research station

In 2007, Trane R&D Center established China's first international postdoctoral research station of HVAC in Taicang, at its own expense. It is the first international high-tech research station in the field of HVAC in China.

## Comprehensive product portfolio

Trane with its rich product family, advanced professional technology and customer-oriented services has long provided various types of central air conditioning and application systems for customers in various industries. Its products range from small residential central air conditioners to large chillers; from fan coil units to modular air handlers; from unit controls to building management systems, etc., and are widely used in electronics, industry, commercial buildings, supermarket chains, financial institutions, government projects, high-end residences, education and culture and many other fields.

### Large commercial HVAC units



### Small and medium-sized units



### Building automation system



## Continuous upgrade of Trane VRF systems

Based on a century of experience in central air conditioning products, with the application of advanced technologies in various products for residential and commercial use, Trane has introduced the latest 180° sine wave DC inverter technology into the GEN series to provide more efficient and reliable air conditioning system for customers around the world.



2022

TVR WIZ All DC Inverter Commercial VRF air conditioning system upgrade



2018

GENYUE Commercial VRF air conditioning system with all DC inverter compressor



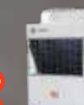
2015

GEN3 commercial VRF air conditioning system with DC inverter compressor



2013

TVR11 commercial VRF air conditioning system with digital scroll compressor



2011

TVR commercial VRF air conditioning system with digital scroll compressor



2002

Impression residential VRF air conditioning system with AC inverter compressor



2002

In 1995, Trane entered the Chinese market and set up two large-scale production bases in Taicang, Jiangsu and Zhongshan, Guangdong successively. In 2004, Trane established its Asia R&D Center in Shanghai. Today, Trane a robust presence all over China.

1995

Trane launched its revolutionary product - hermetic 3-stage centrifugal water chiller.



1938

1931

The first Trane air conditioner was developed successfully.

1913

1885



The Trane Company was incorporated by Jame Trane in La Crosse, Wisconsin with his invention of steam heating system, which laid the groundwork for the Company's initial operations.

Joined by his son Reuben, Jame Trane developed an innovative HVAC product, and since then, Trane has been committed to developing energy-efficient, comfortable and environmentally friendly air conditioning products and system application technologies.



James Trane Reuben Trane



# Outdoor Unit Features | Energy efficient

## EER 4.62 and COP 4.77



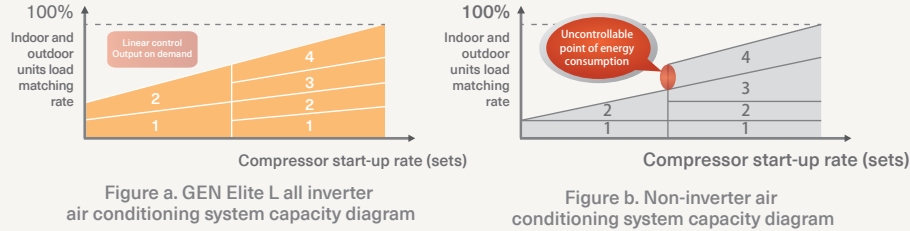
## Dramatic boost in performance thanks to all inverter compressor system

GEN Elite L system all uses high-efficiency DC inverter compressor, which effectively improves the adjustable capacity range and dynamically adjusts the output based on load changes, together with advanced inverter technology and unique piping design to achieve a significant increase in system performance.

### Output on demand achieves high energy efficiency

**All inverter air conditioning system:** The inverter compressors are turned on simultaneously according to the actual air conditioning demand, and can fully meet the demand and output on demand due to the adjustable capacity.

**Non-inverter air conditioning system:** Due to the non-linear control of the output, the output is usually higher than the demand first, and then slowly decreases to approach the actual demand, which inevitably results in energy waste.



### Precise temperature control guarantees stable and comfortable environment

Once the target room temperature is set, the air conditioner starts to bring the room temperature close to the set temperature. Non-inverter air conditioning system will stop running upon reaching the set temperature and start again when the temperature deviates from the set temperature to a certain extent, resulting in noticeable changes in room temperature and affecting comfortable experience. Inverter air conditioning system can adjust the output by changing the compressor speed after the room temperature reaches the set value, and keep running to realize almost no fluctuation of the room temperature and provide more comfortable experience.

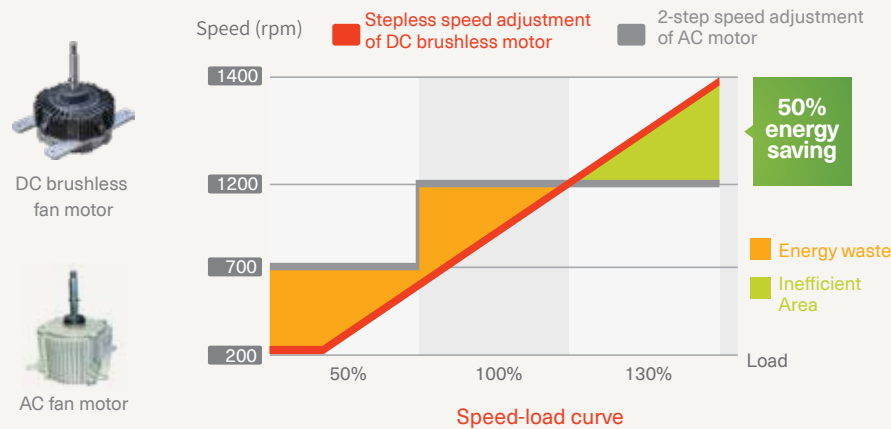
## DC brushless fan motor contributes to low noise and high efficiency

### More efficient low-load operation due to compact structure

Equipped with a DC brushless motor, the outdoor unit features lighter structure and optimized operation under different working conditions, leading to a significantly improvement in the low-load operation efficiency.

### High-precision fan inverter achieves stepless speed adjustment

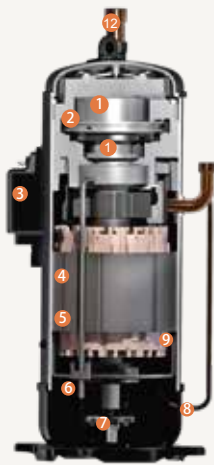
The fan motor is equipped with stepless frequency conversion technology. Via the fan inverter, the fan motor speed is precisely and steplessly adjusted according to the actual load change, which is more significant in energy saving.



## High-pressure cavity scroll compressor

GEN Elite L system adopts high-precision machining, high efficiency high-pressure cavity scroll compressor, high-strength rotating shaft and high-rigidity housing, as well as many advanced technologies to achieve durable, smooth and efficient operation.

The high-precision machining DC inverter scroll compressor features many advanced technologies for superior performance and higher reliability.



- 1. Optimized asymmetric scroll profile**  
New asymmetric scroll profile is adopted to reduce leakage loss, reduce ineffective overheating of suction side, better meet the APF conditions and improve compressor efficiency.
- 2. Non-contact oil film seal**  
The compression cavity is provided with non-contact seals in both axial and radial directions, that is, oil film seals formed by lubricating oil, to reduce friction and improve efficiency and reliability.
- 3. Power terminal cover design**  
More stable installation, higher safety and higher protection class.
- 4. Motor with centralized winding**  
Motor with centralized winding features reduced winding height, and less copper loss and higher efficiency in the low and medium speed areas to better fit the APF conditions.
- 5. High speed**  
Speed range 10-140rps means a wider capability range
- 6. Internal oil circulation structure**  
Internal lubricating oil circulation reduces loss from overheating, lowers oil leakage, and increases efficiency and reliability.
- 7. Positive displacement gear pump**  
Positive displacement gear pump ensures the necessary oil supply at both high and low frequencies, enhancing the compressor reliability.
- 8. Dynamic oil balance structure**  
Oil balance pipe realizes the dynamic oil balance between parallel compressors to ensure the reliable operation of multiple compressors running in parallel.
- 9. High-pressure cavity**  
Large exhaust buffer volume reduces airflow noise and vibration during operation.
- 10. Highly reliable bearing**  
The combination of cylindrical bearing and self-aligning ball bearing is adopted to improve the compressor reliability.
- 11. Intermediate pressure servomechanism**  
Dynamic adjustment of the intermediate pressure according to the operating pressure realizes axial flexibility and optimizes the engagement of orbiting and fixed scrolls to improve product performance.
- 12. Direct suction**  
Low suction preheating, high volumetric efficiency.

### High efficiency DC brushless motor with multiple advanced technologies to achieve high efficiency while reducing the operating sound.

#### Asymmetric scroll design

Asymmetric scroll structure ensures continuous refrigerant intake and guarantees stable output, effectively improving the overall efficiency of the compressor

#### DC centralized winding

Magnets provide high efficiency, i.e., 12% higher than distributing winding

#### Specially designed crankshaft

Specially designed crankshaft for R410a refrigerant significantly improves the stable compressor operation and reduces the operating sound

#### Neodymium magnet rotor

Compared with common magnets, neodymium magnets provide strong magnetic force and magnetic torque, and high efficiency

Centralized winding vs Distributing winding

Neodymium magnets vs Common magnets

### DC inverter technology

Thanks to the inverter module, the output current is a smooth 180° sine wave curve, and the output frequency range is 0~240Hz. Linear output is realized according to the actual load demand to achieve stepless frequency conversion, enabling the compressor to run more smoothly, more quietly and more efficiently. At the same time, it can effectively control harmonic current and electromagnetic noise, fully complying with the national requirements for EMC. The variable frequency drive is air cooled with no additional refrigerant loss to improve the system efficiency.

#### 180° sine wave

Smooth driving torque curve of the compressor

#### Low energy consumption

The sine wave control current has a smooth driving torque curve of the compressor with low energy consumption

#### Low noise

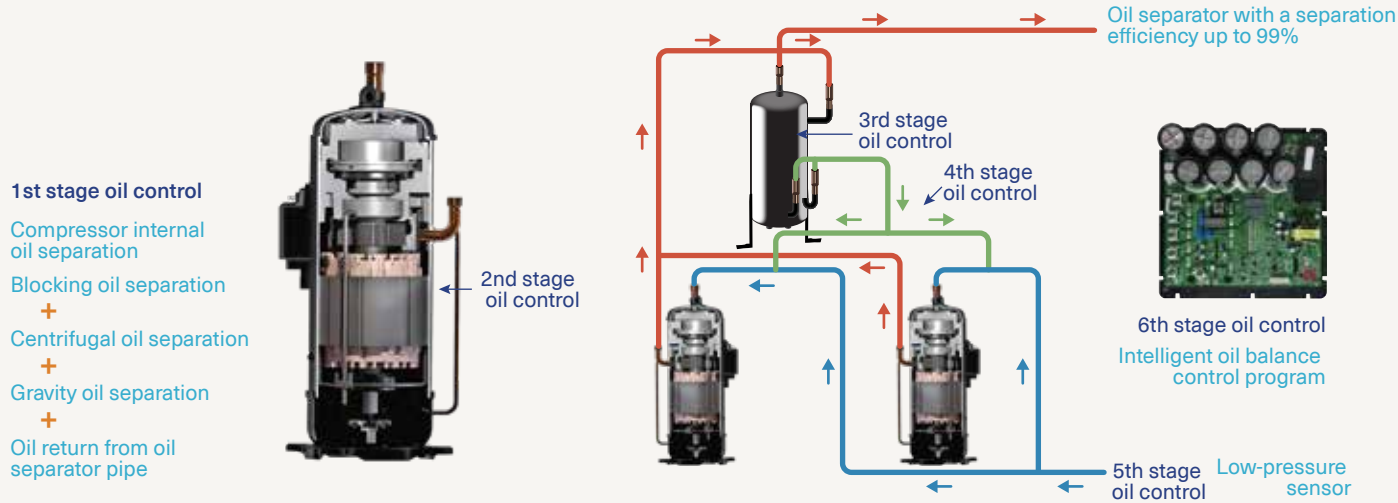
The sine wave control current has a smooth driving torque curve of the compressor with significant reduction in the compressor noise

# Outdoor Unit Features | Reliable quality

## Efficient oil return, intelligent oil control

Sufficient and balanced oil are supplied to each outdoor unit and each compressor under any working conditions to guarantee the safe operation of the outdoor unit and compressor, and avoid potential hazards caused by oil shortage. The unique automatic oil balance system improves the oil tank capacity of high-speed compressor and the reliability of the compressor, ensuring cooling/heating performance while improving reliability.

- 1st stage: Compressor internal oil separation;
- 2nd stage: Oil balance pipe of the compressor controls the internal oil volume and the minimum oil level required for the compressor by judging relevant parameters;
- 3rd stage: High efficiency oil separator with a separation efficiency up to 99.99%;
- 4th stage: Oil balance technology between compressors achieves oil balance; intelligent spraying design for cooling control avoids too high oil temperature;
- 5th stage: Pressure control technology in the new oil return control program controls the appropriate pressure and compressor operating frequency during oil return, resulting in more thorough oil return;
- 6th stage: The unique automatic oil balance system improves the oil tank capacity of high speed compressor and the reliability of the compressor, ensuring cooling/heating performance while improving reliability.



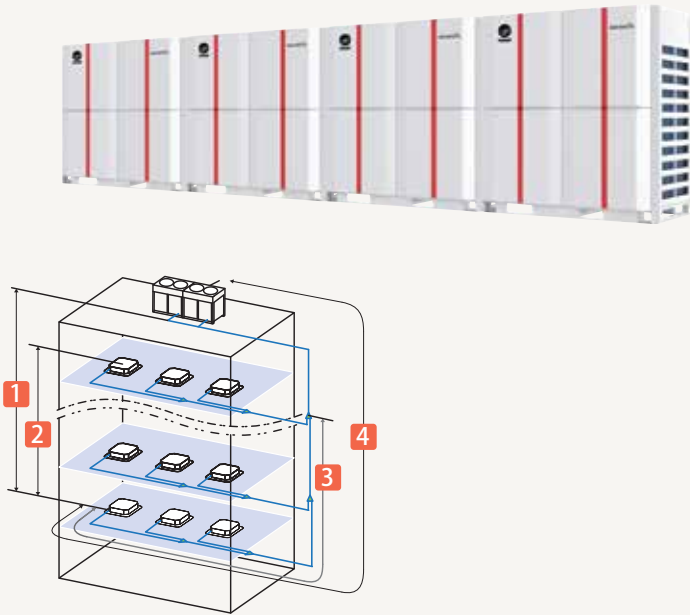
## Advanced installation design

Top air outlet module parallel with outdoor units, max. 32 hp, max. 4 modules in parallel to achieve 128 hp

### Extra-long piping for flexible design

- 1. Max. height difference between indoor and outdoor units: 110 m (outdoor units are lower than indoor units)
- 2. Max. height difference between indoor units: 30 m
- 3. Max. equivalent length from the first manifold to the farthest indoor unit: 40 m
- 4. Max. equivalent pipe length between indoor and outdoor units: 220 m
- 5. Long main pipe up to 1,000 m

Note:  
1. When outdoor units are lower than indoor units, the max. height difference between indoor and outdoor units is 110 m.  
2. When outdoor units are higher than indoor units, the max. height difference between indoor and outdoor units is 90 m.



## Easy installation design

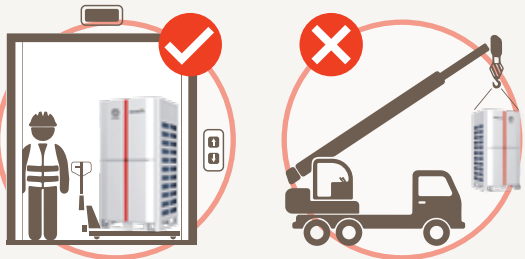
A variety of pipe routing options for easy installation

Four pipe routing direction (left, right, front and bottom) are available for the outdoor units according to the specific conditions of the site, enabling flexible and convenient design and installation.



Lightweight, easy-to-transport units

The lightweight outdoor unit modules can be transported to the installation floor via elevator, eliminating the lifting process and facilitating installation or system retrofit.



## 360° liquid cooling technology offers wide operating ranges (cooling: -5~55°C, heating: -25~28°C)

The electric control system of outdoor units adopts a combination of air cooling and refrigerant cooling to keep the temperature of electronic components during the operation of the machine in the normal working range. In a high temperature environment, the compressor inverter module can be effectively cooled, to reduce the working temperature of the inverter module, prevent the components damages of the electric control system due to high temperature, and keep the stable and reliable operation of the system. Besides, the compressor can support high load output under high temperature to ensure the cooling effect under high temperature conditions.



### Air cooler

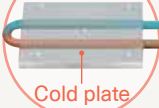
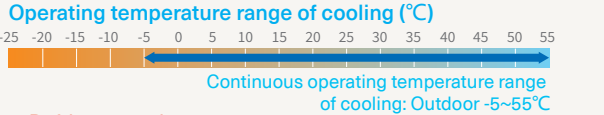
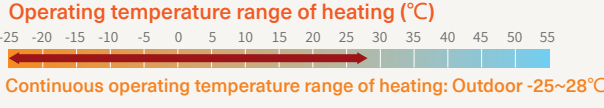
Fans are used to enhance ventilation and cooling effect and keep the stable and reliable system operation.



### Refrigerant cold plate

The wrap-around refrigerant cold plate can take away the heat in the inverter module of outdoor units steadily and efficiently, improving the electrical reliability of the units in a high-temperature environment and ensuring stable and safe operation.

Electric control system  
Temperature drops from 80°C to 60°C



### Refrigerant tube

The 360° tight seal between the cold plate and the refrigerant tube effectively reduces the contact thermal resistance between the copper tube and the cold plate, resulting in improved heat dissipation performance.

## State-of-the-art electrical components

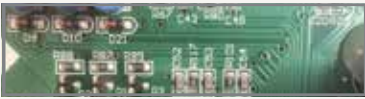
### Advanced SMT technology

SMT (Surface Mounted Technology) are used for component assembly for circuit boards of outdoor units, which effectively improves the reliability of the electrical control and significantly reduces the mainboard area.

### Precision circuit board technology

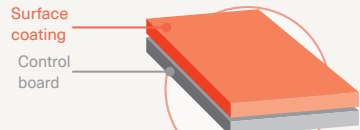
High-precision surface mounted components are used. Surface mounted components have the following major advantages over traditional components:

- Small-size components result in a 50% reduction in the overall area of circuit boards
- Higher accuracy of circuit board etching leads to higher integration
- Superior high-frequency electrical characteristics ensures high operational reliability
- Strong resistance to electromagnetic interference and thermal drift of electrons offers more stable operation



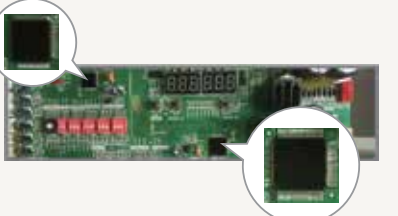
### Special protective coating

Surface coating technology is applied to circuit boards to protect them from wind, sand, humidity and other influences. It effectively improves the stability of the control board and prolongs its service life.



### Dual-chip technology

The mainboard of Gen Elite L system is equipped with dual-chip technology, which, inspired by PC, uses two chips on one outdoor unit mainboard for the air conditioner's operating data processing, to improve the overall computing power. With this technology, the air conditioner control are more accurate and swift, and the operational stability is greatly improved.





# Outdoor Unit Features | Reliable quality

## Advanced communication technology

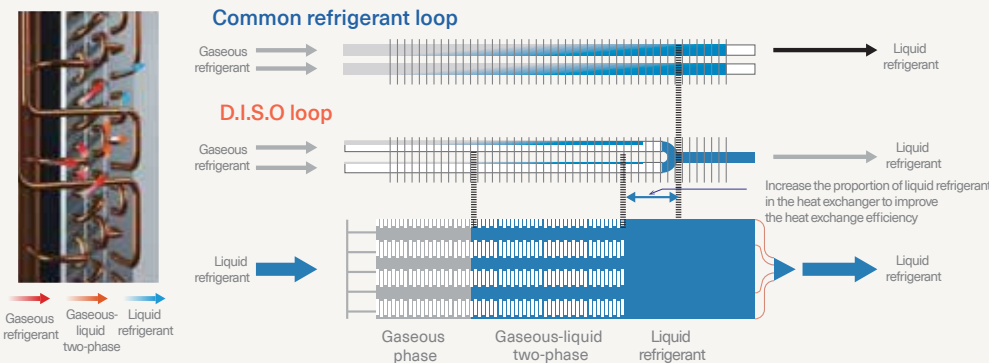
Non-polar communication based on CAN bus communication technology.

	RS485	CAN-bus
Bus utilization	Low	High
Network feature	Single main network	Multi main network
Data transfer rate	Low	High
Fault-tolerant mechanism	None	Reliable error handling and detection mechanism
Communication failure probability	High	Very low
Communication distance		Up to 10km (5kbps)
Network debugging	Difficult	Very easy
Development difficulty	Standard Modbus protocol	Standard CAN-bus protocol
Maintenance cost	High	Low

## Advanced heat exchanger

High efficiency 2-in-1 heat exchange design

The heat exchange efficiency of the gas-liquid two-phase mixed refrigerant is higher than that of the gaseous refrigerant and liquid refrigerant. This loop not only increases the amount of liquid refrigerant, but also increases the refrigerant flow rate and improves the heat exchange efficiency.



Specially designed internal threads

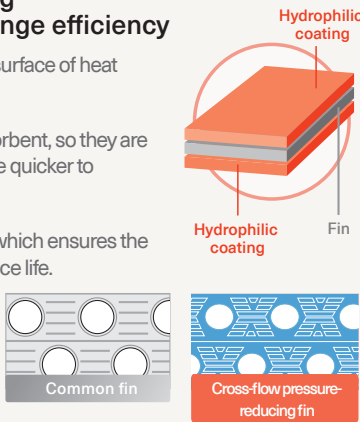
High efficiency coppers tube with internal threads are employed to improve the heat exchange efficiency by 8% due to the enhanced disturbance of the refrigerant flow boundary layer



High efficiency cross-flow pressure-reducing fins are equipped to improve the heat exchange efficiency

- Specially treated hydrophilic aluminum foils are used on the surface of heat exchanger fins of both indoor and outdoor units.
- The fins of the outdoor units with this treatment are non-absorbent, so they are less likely to form frost or ice during heating operation, and are quicker to defrost. The overall performance is thus improved.
- The hydrophilic coating is also anti-corrosion and anti-mold, which ensures the indoor air quality, and effectively extends the equipment service life.

The cross-flow pressure-reducing form improves the heat exchange efficiency, because the heat exchange area is larger than that of common fins, the wind resistance is smaller. The heat exchange efficiency is increased by 12%

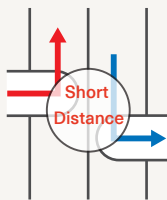


Higher subcooling degree and enhanced cooling capacity due to new loop design

The new subcooling loop design reduces the influence of high temperature refrigerant on the subcooling process of the system and effectively increases the cooling capacity.

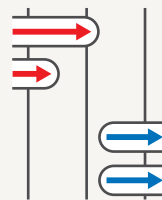
Short distance

A short distance between the inlet and outlet of high temperature and low temperature refrigerants leads to heat conduction and limits the supercooling degree.

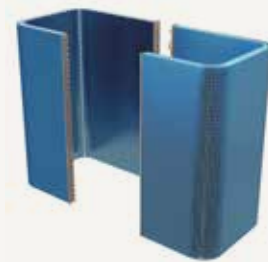


Staggered design of inlet and outlet

The inlet and outlet of high temperature and low temperature refrigerants are staggered to reduce heat transfer and substantially enhance the subcooling degree.



Improved heat exchange efficiency and higher subcooling degree thanks to heat exchanger loop design



## Sophisticated refrigerant control

Changes and fluctuations in room temperature and noise are often measures of a comfort air conditioning system. The all inverter VRF air conditioning system, in addition to matching the indoor cooling and heat demands through constant adjustment of the compressor speed, needs a series of system status sensing and refrigerant adjustment, to eventually reach the set room temperature relatively quickly and maintain small temperature fluctuations before it can be called a comfort system.

Comprehensive synchronous sensing technology

- The outdoor unit is equipped with various sensors such as high pressure sensor, low pressure sensor, high pressure switch, low pressure switch, compressor temperature sensor, ambient temperature sensor and heat exchanger sensor. These sensors are able to detect the operation status of the whole system simultaneously and determines the subsequent operation.



Pressure sensor



Pressure switch

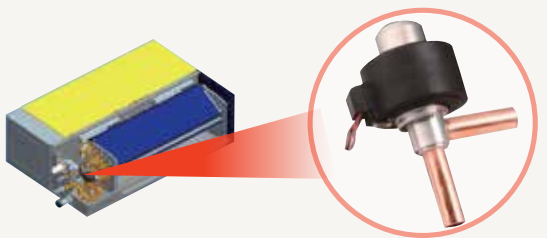


Temperature sensor

- GEN Elite L system adopts DC inverter technology to collect and control the temperature of all indoor and outdoor points while precisely adjusting the operating frequency of the unit. The accuracy of temperature control is  $\pm 0.5^{\circ}\text{C}$ , which fully meets the user's requirement for room temperature.

Indoor units controlled by electronic expansion valve

- The built-in quiet electronic expansion valve makes the body more compact and effectively reduces the noise generated by the refrigerant flow.
- The indoor unit is equipped with a high-precision electronic expansion valve with up to 2000 steps.



Built-in electronic expansion valve

## Electrical protection functions

Three-phase power supply protection

GEN Elite L system is provided with the three-phase power supply protection. In case the main power supply fails, this protection can well protect the main parts such as the computer board and compressor of the outdoor unit.

Lightning protection

The filter board of GEN Elite L system is equipped with discharge tubes and piezoresistors for lightning protection, which can effectively protect the stable unit operation in thunderstorms.

Suppression of high-order harmonics

GEN Elite L system is equipped with professional power filters and signal line filters, and the whole electric control cabinet adopts metal structure to effectively suppress the generation of high-order harmonics and interference, which is in full compliance with the relevant national EMC standards.

Power-off reset

In case of a unexpected power failure during the operation of the unit, the system can automatically store the last operating status, and when power supply is restored, the system will automatically return to the operating status before the power failure, with no need to reset the settings, making the service more intelligent.

SMT technology

High-precision surface mounted components generate low heat and effectively inhibit thermal drift. Dustproof and moisture-proof surface coatings effectively improve the stability of circuit operation.

# Outdoor Unit Features | Reliable quality

# Outdoor Unit Features Comfortable and Eco-friendly

## Well-adapted system

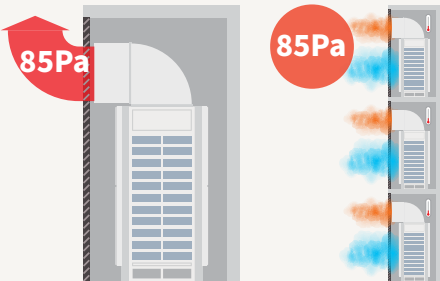
In the practical application of modern commercial buildings, VRF air conditioning system is generally installed in three ways:

- Installed outdoors (rooftop or podium roof)
- Installed in refuge area
- Installed on different floors (generally on the same side)

These three installation methods are more or less subject to airflow short-circuit problems, especially the latter two methods, which may cause poor heat dissipation due to louvers or grilles, thus affecting the indoor cooling (heating) effect.

To avoid this problem, GEN Elite L outdoor unit adopts a DC brushless motor, so that the external static pressure of the outdoor unit can be adjusted at multiple levels, up to 85 Pa. Even if louvers or grilles are installed in front of the outdoor unit, it can still ensure good air conditioning effect.

In office buildings, outdoor units are often placed on the same side, which often causes heat accumulation in outdoor units. In addition, sometimes due to the influence of monsoons, the effect of indoor units could be greatly impaired. However, the high static pressure design of GEN Elite L system can effectively reduce this problem.



## Anti-corrosion treatment

The product adopts several anti-corrosion technologies to effectively extend the service life

- The outdoor unit housing is made of galvanized steel sheets with multi-layer spraying of antioxidant coating.
- High efficiency heat exchanger with hydrophilic blue-coated aluminum foil fins is specially engineered with strong corrosion resistance.

## Sophisticated unit control functions

- Automatic addressing facilitates installation and commissioning.
- Self-adaptive pipe length function enables the unit to automatically adjust the system operation parameters and make corrections according to different pipe lengths.
- 7-segment LED display can show the operating status of the unit on the outdoor unit and facilitate the commissioning and maintenance work.
- Intelligent diagnosis function can easily obtain system fault information, simplifying operation management as well as shortening maintenance time.
- Intelligent refrigerant recovery function can reduce maintenance costs and quickly deal with system problems.
- Multiple outdoor operation modes available: cooling priority / heating priority / first selection priority / cooling only / heating only.
- Setting of indoor unit heating temperature compensation.
- Automatic snow buildup prevention function can reduce startup risks and achieve higher stability.
- Intelligent one-button automatic trial run technology facilitates installation and commissioning.

## Stringent quality control to ensure product quality

The overall enhancement in energy efficiency at full and part loads of GEN Elite L system comes from several technological improvements. It is not only contributed by all inverter DC compressors and DC motors of indoor and outdoor units, but also due to more precise control of refrigerant flow, improved oil management technology to guarantee compressor efficiency and rigorous laboratory testing.

Trane Asia Pacific Engineering Technology Center covers an area of 6,000 m<sup>2</sup> with a floor space of more than 12,000 m<sup>2</sup>. Furnished with advanced testing equipment and a comprehensive testing process, it can complete various technical tests from mold development to performance testing, EMC, acoustic testing and refrigerant analysis. It can carry out tests for products ranging from residential units, VRF air conditioning units, air-cooled heat pump units, water-cooled units, large centrifugal units, etc. The laboratory is certified by GMPI (National Quality Supervision and Inspection Center of Compressor and Refrigerator products) and CNAS (China National Accreditation Service for Conformity Assessment), which is in the industry-leading position.



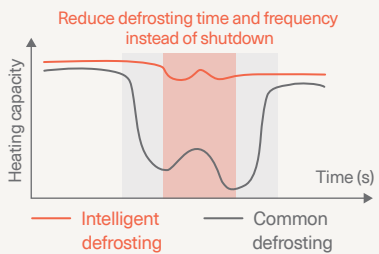
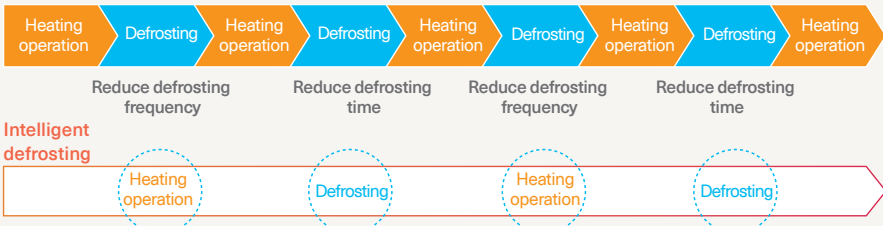
## Efficient heating

Intelligent defrosting effectively extends the heating time

Intelligent defrosting technology:

The system accurately judges the defrosting timing according to the main parameters of heating operation and load changes, so as to achieve necessary defrosting and normal heating, and avoid unnecessary defrosting and heating losses. When the ambient humidity is high and the frost on the outdoor unit is thick, the system will appropriately defrost in advance to better ensure indoor comfort; when the outdoor unit is defrosting, the system will turn off the indoor unit to prevent cold air from blowing out, ensuring a lasting comfortable indoor environment.

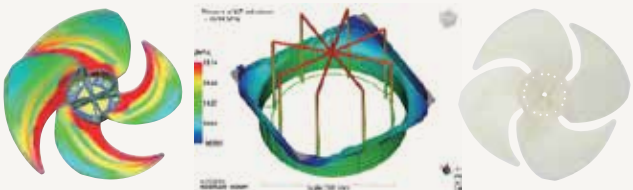
Common defrosting



## Quiet operation technology contributes to comfort and noise reduction

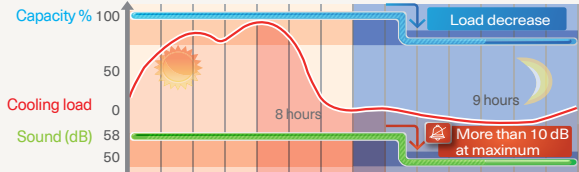
Anti-vibration axial flow fan with forward-swept blades

Enhanced blade ends and optimized local thickness of blade front reduce blade tip vibrations and vortex generation. Especially when running at high speed, it can make the operation smoother and reduce the operating sound.



Multi-purpose Silent Night mode

The outdoor unit can be set in Silent Night mode, in this case, the program will automatically adjust the fan and compressor speed of the outdoor unit according to the operation of the unit, so as to reduce the overall energy consumption while meeting the indoor load requirements and achieve a balance between comfort and energy saving. It is especially suitable for villas and high-end apartments. It can reduce the operating sound by more than 10 dB at maximum.



## Green and environmental protection



Full compliance with RoHS Directive

RoHS is a mandatory standard established by EU legislation, short for the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment. It is established to eliminate six substances: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) from electrical and electronic products. It regulates the materials, process standards, recycling and disposal of electrical and electronic products to make them more beneficial to human health and environmental protection.

Environmentally friendly R410A refrigerant

The new refrigerant R410A mainly made up of hydrogen, fluorine and carbon is stable, non-toxic and has superior performance. It contributes to high cooling (heating) efficiency and improves air conditioning performance.

Item	Parameter
Ozone Depletion Potential (ODP)	0
Combustibility in the air	0
Chemical and thermal stability	High





Outdoor Unit Lineup & Specifications

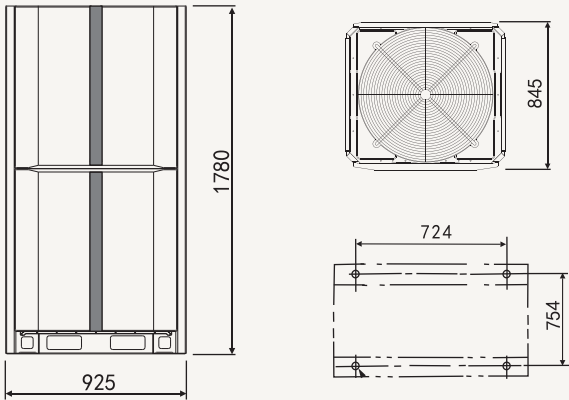
Outdoor unit lineup

Cooling Capacity	Combination of modules												
HP	8	10	12	14	16	18	20	22	24	26	28	30	32
8	1												
10		1											
12			1										
14				1									
16					1								
18						1							
20							1						
22								1					
24									1				
26										1			
28											1		
30												1	
32													1
34					1	1							
36						2							
38				1				1					
40					1			1					
42							1	1					
44								2					
46								1	1				
48								2					
50								1	1	1			
52								1			1		
54									1	1			
56										2			
58										1		1	
60											2		
62											1		1
64													2
66								3					
68								2	1				
70								1	2				
72									3				
74								1	1		1		
76									1	2			
78									1	1			
80										2	1		
82										1	2		
84											3		
86											2	1	
88											1	2	
90												3	
92												2	1
94												1	2
96													3
98								3	1				
100								2	2				
102								1	3				
104								1	2		1		
106									3		1		
108									2		2		
110								1	3		3		
112									4				
114									3			1	
116									3				1
118									2		2		
120											4		
122											3	1	
124											2	2	
126											1	3	
128													4

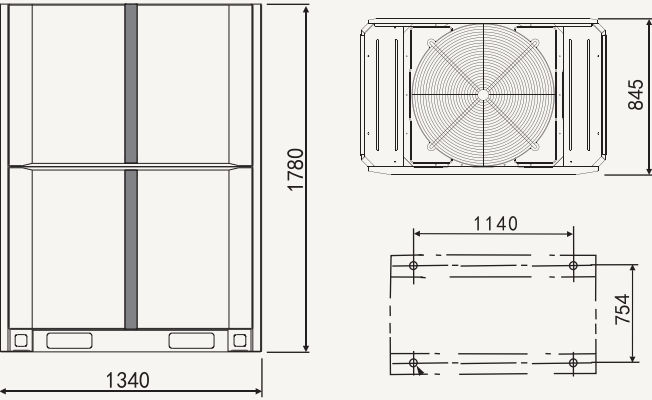
Outdoor Unit Specifications

Outdoor unit dimension (Unit : mm)

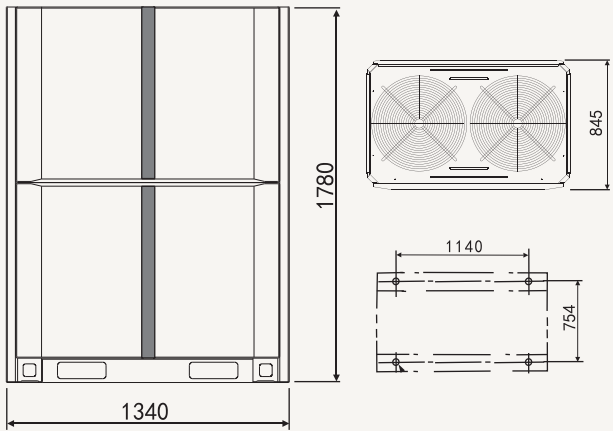
TAH0080/0100/0120



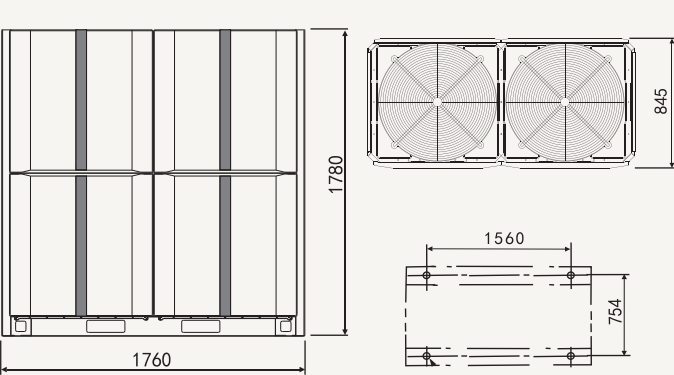
TAH0140/0160/0180



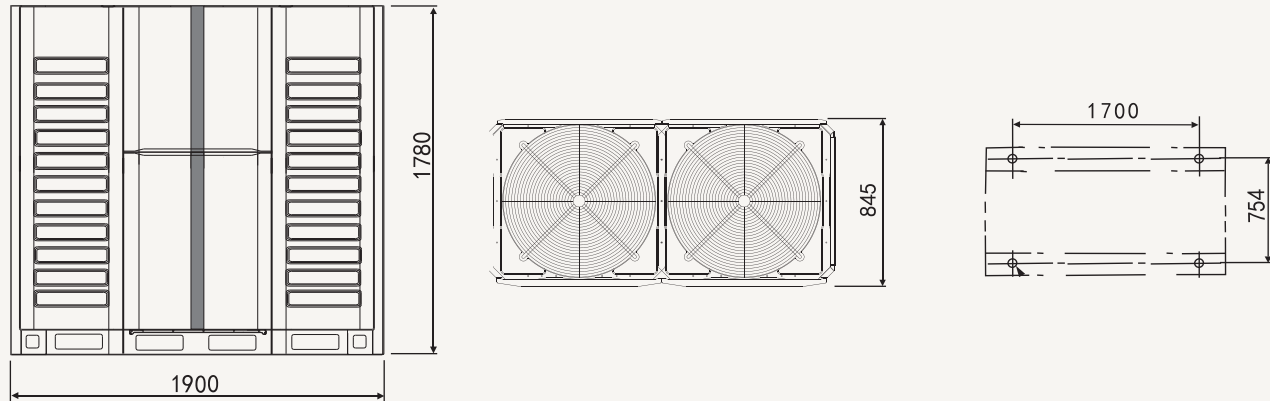
TAH0200/0220



TAH0240/0260/0280



TAH0300/0320





Outdoor Unit Specifications

Outdoor Unit Specifications

🌀 Outdoor unit Specifications

Model TAH0(080~320)ADLCNAC			080	100	120	140	160	180	200	220	240	260	280	300	320
Power Supply			380 ~ 415V/3N/50Hz												
Cooling	Capacity	HP	8	10	12	14	16	18	20	22	24	26	28	30	32
		kW	25.2	28	33.5	40	45	50.4	56	61.5	68	73	78.5	85	90
		Btu/h	86000	95500	114300	136500	153500	172000	191100	209800	232000	249100	267800	290000	307100
	Rated Power	KW	5.46	6.51	8.28	9.96	11.99	13.54	15.10	17.10	20.52	22.10	24.40	27.00	29.10
	Rated Current	A	8.7	10.4	13.2	15.9	19.1	21.6	24.1	27.3	32.7	37.2	41.1	45.5	49.0
	EER	W/W	4.62	4.30	4.05	4.02	3.75	3.72	3.71	3.60	3.31	3.30	3.22	3.15	3.09
Heating	Capacity	kW	27	31.5	37.5	45	50	56	63	69	75	81.5	87.5	95	100
		Btu/h	92100	107500	128000	153500	170600	191100	215000	235400	255900	278100	298600	324100	341200
	Rated Power	KW	5.66	6.98	8.66	10.58	12.02	13.64	15.91	17.39	21.15	23.32	25.32	28.02	30.02
	Rated Current	A	9.0	11.1	13.8	16.9	19.2	21.8	25.4	27.7	33.7	39.3	42.6	47.2	50.5
	COP	W/W	4.77	4.51	4.33	4.25	4.16	4.11	3.96	3.97	3.55	3.49	3.46	3.39	3.33
Indoor Unit Connection Ratio			50%~130%												
Compressor	Qty.		1	1	1	1	1	1	1	1	2	2	2	2	2
	Type		DC Inverter Scroll compressor												
Air Volume		m³/h	11000	11000	11500	13500	14000	15500	19000	19000	23000	26000	26000	27000	27000
		CFM	6474	6474	6769	7946	8245	9123	11183	11183	13537	15303	15303	15891	15891
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charged Volume	kg	11	11	9	12	12	13	14	14	16	23	23	28	28
Dimensions (WxDxH)	Net dimensions (WxDxH)	mm	925×845×1780	925×845×1780	925×845×1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780
	Packing dimensions (WxDxH)	mm	1000×920x1940	1000×920x1940	1000×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940
Net weight		kg	230	230	215	270	270	280	315	315	380	420	420	450	450
Noise level		dB(A)	60	61	62	63	63	64	64	65	65	65	65	66	66
Connecting Pipe	Gas	mm	φ25.4	φ25.4	φ25.4	φ28.6	φ28.6	φ28.6	φ28.6	φ28.6	φ31.8	φ31.8	φ31.8	φ34.9	φ34.9
	Liquid	mm	φ12.7	φ12.7	φ12.7	φ12.7	φ12.7	φ12.7	φ15.88	φ15.88	φ19.05	φ19.05	φ19.05	φ19.05	φ19.05
Cooling	Outdoor	℃	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55
	Indoor	℃	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32
Heating	Outdoor	℃	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28
	Indoor	℃	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31

Notes:  
\* Nominal capacities are based on the following conditions.  
1. Cooling: indoor temperature: 27 ℃ DB, 19 ℃ WB; outdoor temperature: 35 ℃ DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.  
2. Heating: indoor temperature: 20 ℃ DB; outdoor temperature:7 ℃ DB, 6 ℃ WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.



# Outdoor Unit Specifications

# Outdoor Unit Specifications

## 🕒 Outdoor unit Specifications

Model TAH0(340~1280)ADLCNAC		340	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	720	740	760	780	800	
Combination Method	Unit1	160	180	160	180	200	220	220	240	240	240	260	280	280	300	300	320	220	220	220	240	220	240	240	260	
	Unit2	180	180	220	220	220	220	240	240	260	280	280	280	300	300	320	320	220	220	240	240	240	260	260	260	
	Unit3																	220	240	240	240	280	260	280	280	
Power Supply		380 ~ 415V/3N/50Hz																								
Cooling	Capacity	HP	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
		kW	95.4	100.8	106.5	111.9	117.5	123	129.5	136	141	146.5	151.5	157	163.5	170	175	180	184.5	191	197.5	204	208	214	219.5	224.5
		Btu/h	325500	343900	363400	381800	400900	419700	441900	464000	481100	499900	516900	535700	557900	580000	597100	614200	629500	651700	673900	696000	709700	730200	748900	766000
	Rated Power	KW	25.53	27.08	29.09	30.64	32.2	34.2	37.62	41.04	42.62	44.92	46.5	48.8	51.4	54	56.1	58.2	51.3	54.72	58.14	61.56	62.02	64.72	67.02	68.6
	Rated Current	A	40.7	43.2	46.4	48.9	51.4	54.6	60.0	65.4	69.9	73.8	78.3	82.2	86.5	90.9	94.4	98.0	81.9	87.3	92.7	98.1	101.1	107.1	111.0	115.5
Heating	Capacity	W/W	3.74	3.72	3.66	3.65	3.65	3.60	3.44	3.31	3.26	3.26	3.22	3.18	3.15	3.12	3.09	3.60	3.49	3.40	3.31	3.35	3.31	3.28	3.27	
		kW	106	112	119	125	132	138	144	150	156.5	162.5	169	175	182.5	190	195	200	207	213	219	225	231.5	238	244	250.5
		Btu/h	361700	382100	406000	426500	450400	470900	491300	511800	534000	554500	576600	597100	622700	648300	665300	682400	706300	726800	747200	767700	789900	812100	832500	854700
	Rated Power	KW	25.66	27.28	29.41	31.03	33.3	34.78	38.54	42.3	44.47	46.47	48.64	50.64	53.34	56.04	58.04	60.04	52.17	55.93	59.69	63.45	63.86	67.79	69.79	71.96
	Rated Current	A	41.0	43.6	46.9	49.5	53.1	55.4	61.4	67.4	73.0	76.3	81.9	85.3	89.8	94.3	97.7	101.1	83.1	89.1	95.1	101.1	104.0	112.2	115.6	121.1
COP		W/W	4.13	4.11	4.05	4.03	3.96	3.97	3.74	3.55	3.52	3.50	3.47	3.46	3.42	3.39	3.36	3.33	3.97	3.81	3.67	3.55	3.63	3.51	3.50	3.48
Indoor Unit Connecton Ratio			50%~130%																							
Compressor	Qty.		2	2	2	2	2	3	4	4	4	4	4	4	4	4	4	3	4	5	6	5	6	6	6	
	Type		DC Inverter Scroll																							
Air Volume	Total	m³/h	29500	31000	33000	34500	38000	38000	42000	46000	49000	49000	52000	52000	53000	54000	54000	54000	57000	61000	65000	69000	68000	75000	75000	78000
		CFM	17373	18257	19435	20318	22379	22379	24735	27091	28857	28857	30624	30624	31213	31802	31802	31802	33569	35925	38280	40636	40047	44170	44170	45936
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Dimensions (W*D*H)	Charged volume (Total)	kg	25	26	26	27	28	28	30	32	39	39	46	46	51	56	56	56	42	44	46	48	53	62	62	69
	Net dimensions (WxDxH) Unit1	mm	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1760×845x1780	1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780
	Net dimensions (WxDxH) Unit2	mm	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×1780×845	1900×845x1780	1900×845x1780	1900×845x1780	1340×780x1845	1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780
	Net dimensions (WxDxH) Unit3	mm																		1340×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780
	Packing dimensions (WxDxH) Unit1	mm	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1840×920x1940	1420×920x1940	1840×920x1940	1840×920x1940
	Packing dimensions (WxDxH) Unit2	mm	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1420×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×1940×920	1970×920x1940	1970×920x1940	1970×920x1940	1420×920x1940	1420×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940
	Packing dimensions (WxDxH) Unit3	mm																		1420×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940
Net Weight	Net weight(Unit1)	kg	270	280	270	280	315	315	315	380	380	380	420	420	420	450	450	450	315	315	315	380	315	380	380	420
	Net weight(Unit2)	kg	280	280	315	315	315	380	380	420	420	420	420	420	450	450	450	450	315	315	380	380	380	420	420	420
	Net weight(Unit3)	kg																	315	380	380	380	420	420	420	420
Noise Level		dB(A)	67	67	67	68	68	68	68	68	68	68	68	68	69	69	69	69	70	70	70	70	70	70	70	
Connecting Pipe	Gas	mm	Φ34.9	Φ34.9	Φ34.9	Φ34.9	Φ34.9	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ41.2	Φ41.2	Φ41.2	Φ41.2	Φ41.2	Φ41.2	Φ41.2	Φ41.2	Φ44.5	Φ44.5	Φ44.5	Φ44.5	
	Liquid	mm	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	
Cooling	Outdoor	℃	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	
	Indoor	℃	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	16~32	
Heating	Outdoor	℃	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	-25~28	
	Indoor	℃	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	15~31	

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27 ℃ DB, 19 ℃ WB; outdoor temperature: 35 ℃ DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

2. Heating: indoor temperature: 20 ℃ DB; outdoor temperature:7 ℃ DB, 6 ℃ WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

\*The above is the recommended ODU combination, which can be freely combined on site according to the actual situation.

The number of ODU combination should be ≤ 4.



# Outdoor Unit Specifications

# Outdoor Unit Specifications

## Outdoor unit Specifications

Model TAH0(340~1280)ADLCNAC			820	840	860	880	900	920	940	960	980	1000	1020	1040	1060	1080	1100	1120	1140	1160	1180	1200	1220	1240	1260	1280		
Combination Method		Unit1	260	280	280	280	300	300	300	320	240	240	240	240	260	260	260	280	280	280	280	300	300	300	300	320		
		Unit2	280	280	280	300	300	300	320	320	240	240	260	260	260	260	280	280	280	280	300	300	300	300	320	320		
		Unit3	280	280	300	300	300	320	320	320	240	260	260	260	260	280	280	280	280	300	300	300	300	320	320	320		
		Unit4									260	260	260	280	280	280	280	280	300	300	300	300	320	320	320	320		
Power Supply			380 ~ 415V/3N/50Hz																									
Cooling	Capacity	HP	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128		
		kW	230	235.5	242	248.5	255	260	265	270	277	282	287	292.5	297.5	303	308.5	314	320.5	327	333.5	340	345	350	355	360		
		Btu/h	784800	803500	825700	847900	870100	887100	904200	921200	945100	962200	979200	998000	1015100	1033800	1052600	1071400	1093500	1115700	1137900	1160100	1177100	1194200	1211300	1228300		
	Rated Power	KW	70.9	73.2	75.8	78.4	81	83.1	85.2	87.3	83.66	85.24	86.82	89.12	90.7	93	95.3	97.6	100.2	102.8	105.4	108	110.1	112.2	114.3	116.4		
	Rated Current	A	119.4	123.2	127.6	132.0	136.4	139.9	143.4	147.0	135.3	139.8	144.3	148.2	152.7	156.6	160.4	164.3	168.7	173.1	177.4	181.8	185.4	188.9	192.4	196.0		
	EER	W/W	3.24	3.22	3.19	3.17	3.15	3.13	3.11	3.09	3.31	3.31	3.31	3.28	3.28	3.26	3.24	3.22	3.20	3.18	3.16	3.15	3.13	3.12	3.11	3.09		
Heating	Capacity	kW	256.5	262.5	270	277.5	285	290	295	300	306.5	313	319.5	325.5	332	338	344	350	357.5	365	372.5	380	385	390	395	400		
		Btu/h	875200	895700	921200	946800	972400	989500	1006500	1023600	1046000	1045800	1068000	1090100	1110600	1132800	1173700	1194200	1219800	1245400	1271000	1296600	1313600	1330700	1347700	1364800		
	Rated Power	KW	73.96	75.96	78.66	81.36	84.06	86.06	88.06	90.06	86.77	88.94	91.11	93.11	95.28	97.28	99.28	101.28	103.98	106.68	109.38	112.08	114.08	116.08	118.08	120.08		
	COP	W/W	3.47	3.46	3.43	3.41	3.39	3.37	3.35	3.33	3.53	3.52	3.51	3.50	3.48	3.47	3.46	3.46	3.44	3.42	3.41	3.39	3.37	3.36	3.35	3.33		
Indoor Unit Connection Ratio			50%~130%																									
Compressor	Qty.		6	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
	Type		DC Inverter Scroll Compressor																									
Air Volume		m³/h	78000	78000	79000	80000	81000	81000	81000	81000	95000	98000	101000	101000	104000	104000	104000	104000	105000	106000	107000	108000	108000	108000	108000	108000		
		CFM	45936	45936	46525	47114	47703	47703	47703	47703	55948	57715	59482	59482	61249	61249	61249	61249	61837	62426	63015	63604	63604	63604	63604	63604		
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A		
	Charged volume (Total)	kg	69	69	74	79	84	84	84	84	71	78	85	85	92	92	92	92	97	102	107	112	112	112	112	112		
Dimensions (WxDxH)	Net dimensions (W x D x H) Unit1	mm	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780		
	Net dimensions (W x D x H) Unit2	mm	1760×845x1780	1760×845x1780	1760×845x1780	1900×1780×845	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780		
	Net dimensions (W x D x H) Unit3	mm	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780		
	Net dimensions (W x D x H) Unit4	mm									1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1760×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780	1900×845x1780			
	Packing dimensions (W x D x H) Unit1	mm	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940		
	Packing dimensions (W x D x H) Unit2	mm	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940		
	Packing dimensions (W x D x H) Unit3	mm	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940		
	Packing dimensions (W x D x H) Unit4	mm									1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1840×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940	1970×920x1940		
Net Weight	Net weight(Unit1)	kg	420	420	420	420	450	450	450	450	380	380	380	380	420	420	420	420	420	420	420	450	450	450	450	450		
	Net weight(Unit2)	kg	420	420	420	450	450	450	450	450	380	380	420	420	420	420	420	420	420	420	450	450	450	450	450	450		
	Net weight(Unit3)	kg	420	420	450	450	450	450	450	450	380	420	420	420	420	420	420	420	420	450	450	450	450	450	450	450		
	Net weight(Unit4)	kg									420	420	420	420	420	420	420	420	450	450	450	450	450	450	450	450		
Noise Level		dB(A)	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72		
Connecting Pipe	Gas	mm	Φ44.5	Φ44.5	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ54.0	Φ63.0	Φ63.0	Φ63.0	Φ63.0		
	Liquid	mm	Φ22.2	Φ22.2	Φ25.4	Φ25.4	Φ25.4	Φ25.4	Φ25.4	Φ25.4	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6		
Cooling	Outdoor	℃	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~56	-5~57	-5~58	-5~59	-5~60	-5~61	-5~62	-5~63	-5~64	-5~65	-5~66	-5~67	-5~68	-5~55		
	Indoor	℃	16~32	16~32	16~																							

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27 ℃ DB, 19 ℃ WB; outdoor temperature: 35 ℃ DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20 ℃ DB; outdoor temperature:7 ℃ DB, 6 ℃ WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

\*The above is the recommended ODU combination, which can be freely combined on site according to the actual situation.  
The number of ODU combination should be ≤ 4.



# Indoor Unit Features

## MAA018~056 series - 1-way Cassette



1-way Cassette has small space limitation because of the industry-leading 215 mm ultra-thin body. Intelligent swing control enables ultra-wide air supply range. Three levels of air flow rate are available. Because of the compactness, this unit can be easily installed at the corners in offices, lobbies and other spaces to create a comfortable environment.

- Ultra-thin body (235 mm) supports flexible installation combination
- Comes standard with a high head pump (head up to 1200 mm)
- Precise temperature control within  $\pm 0.5^{\circ}\text{C}$  is realized via wire control and dual temperature detection control of the unit



## MAB022~071 series - 2-way Cassette



2-way Cassette is specially designed for space with ceiling up to 3 m high. The air supply range is from  $10^{\circ}$  to  $65^{\circ}$ . Three levels of air flow rate are available. Quiet operation and even air flow. This unit is used in reception rooms, conference rooms, etc. to provide a comfortable space.

- Comes standard with a high head pump (head up to 1200 mm)
- Two-way air outlet structure ensures balanced air distribution
- Large louvers with a swing angle up to  $120^{\circ}$  support ultra-wide air supply range
- Comes standard with exquisite external panel



# Indoor Unit Specifications

## Specifications

### MAA018 ~056 series - 1-way Cassette

Model			MAA018AMNNNA	MAA022AMNNNA	MAA028AMNNNA	MAA036AMNNNA	MAA045AMNNNA	MAA050AMNNNA	MAA056AMNNNA
Capacity	Cooling	kW	1.8	2.2	2.8	3.6	4.5	5.0	5.6
		Btu/h	6,100	7,500	9,600	12,300	15,400	17,100	19,100
	Heating	kW	2.2	2.8	3.2	4.0	5.0	5.6	6.3
		Btu/h	7,500	9,600	10,900	13,600	17,100	19,100	21,500
Power Input	Cooling	kW	0.05	0.05	0.05	0.06	0.07	0.07	0.07
	Heating	kW	0.05	0.05	0.05	0.06	0.07	0.07	0.07
Power supply			220-240V, 1 Phase, 50Hz						
Current			0.24	0.24	0.24	0.28	0.31	0.31	0.31
	Heating	A	0.24	0.24	0.24	0.28	0.31	0.31	0.31
Air Flow Rate	High	m <sup>3</sup> /h	510	510	510	680	800	800	800
		CFM	300	300	300	400	471	471	471
Noise Level	High/Medium/Low	dB(A)	40/34/31	40/34/31	40/34/31	40/34/31	43/36/33	43/36/33	43/36/33
	Gas	mm	9.52	9.52	9.52	12.7	12.7	12.7	12.7
Connecting Pipe	Liquid	mm	6.35	6.35	6.35	6.35	6.35	6.35	6.35
	Net Dimension	mm	850×480×235						
Dimension (WxDxH)	Packing Dimension	mm	1,105×645×305						
Net Weight		kg	23						
Drainage Pipe Diameter		mm	OD $\phi$ 25						

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

### MAB022 ~ 071 series - 2-way Cassette

Model			MAB022AMNNNA	MAB028AMNNNA	MAB036AMNNNA	MAB045AMNNNA	MAB050AMNNNA	MAB056AMNNNA	MAB063AMNNNA	MAB071AMNNNA
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.0	5.6	6.3	7.1
		Btu/h	7,500	9,600	12,300	15,400	17,100	19,100	21,500	24,200
	Heating	kW	2.8	3.2	4.0	5.0	5.6	6.3	7.1	8.0
		Btu/h	9,600	10,900	13,600	17,100	19,100	21,500	24,200	27,300
Power Input	Cooling	kW	0.064				0.07		0.11	
	Heating	kW	0.064				0.07		0.11	
Power supply			220-240V, 1 Phase, 50Hz							
Current	Cooling	A	0.27				0.31		0.49	
	Heating	A	0.27				0.31		0.49	
Air Flow Rate	High	m3/h	580		680		850		1,360	
		CFM	341		400		500		800	
Noise Level	High/Medium/Low	dB(A)	40/35/32		43/36/33		44/38/35		47/39/36	
Connecting Pipe	Gas	mm	12.7						15.88	
	Liquid	mm	6.35						9.52	
Dimension (WxDxH)	Net Dimension	mm	1,140×575×290							
	Packing Dimension	mm	1,305×755×370							
Net Weight		kg	32				33		34	
Drainage Pipe Diameter		mm	OD ϕ25							

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

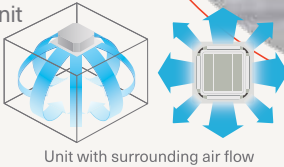
Indoor Unit Features

MAC022~140 series - Round Flow Cassette



Round flow cassette adopts the middle air return and eight-sided air supply structure, allowing high air supply and even air distribution between all corners of the room. This unit is widely used in hotels, office buildings, shopping malls and other places to provide a comfortable and pleasant environment.

- New look, 360° air supply
- Large air deflectors support 3.2 m long-distance air supply
- Ultra-wide air supply range ensures comfortable experience during both cooling and heating operations
- Comes standard with a high head pump (head up to 1200 mm)
- Precise temperature control within ±0.5 °C is realized via wire control and dual temperature detection control of the unit



Indoor Unit Specifications

Specifications

MAC022 ~ 140 series - Round flow cassette

Model			MAC022AMRNNA	MAC025AMRNNA	MAC028AMRNNA	MAC032AMRNNA	MAC036AMRNNA	MAC040AMRNNA	MAC045AMRNNA	MAC050AMRNNA	MAC056AMRNNA
Capacity	Cooling	kW	2.2	2.5	2.8	3.2	3.6	4	4.5	5	5.6
		Btu/h	7,500	8,500	9,600	10,900	12,300	13,600	15,400	17,100	19,100
	Heating	kW	2.5	2.8	3.2	3.6	4	4.5	5	5.6	6.3
		Btu/h	8,500	9,600	10,900	12,300	13,600	15,400	17,100	19,100	21,500
Power Input	Cooling	kW	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	Heating	kW	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Power Supply			220-240V, 1 Phase, 50Hz								
Current	Cooling	A	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
	Heating	A	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Air Flow Rate	High	m3/h	750	750	750	750	750	850	850	850	850
		CFM	441	441	441	441	441	500	500	500	500
Noise Level	High/Medium/Low	dB(A)	42/37/33	42/37/33	42/37/33	42/37/33	42/37/33	42/38/35	42/38/35	42/38/35	42/38/35
Connecting Pipe	Gas	mm	12.7								
	Liquid	mm	6.35								
Dimension (WxDxH)	Net Dimension	mm	840×840×230								
	Packing Dimension	mm	945×945×285								
Net Weight		kg	23	23	23	23	23	24	24	24	24
Panel	Model		TPC-01ANC								
	Dimension (WxDxH)	mm	950×950×50								
	Packing Dimension (WxDxH)	mm	1,035×1,035×90								
	Net Weight	kg	6								
Drainage Pipe Diameter		mm	OD φ32								

Model			MAC063AMRNNA	MAC071AMRNNA	MAC080AMRNNA	MAC090AMRNNA	MAC100AMRNNA	MAC112AMRNNA	MAC125AMRNNA	MAC140AMRNNA
Capacity	Cooling	kW	6.3	7.1	8	9	10	11.2	12.5	14
		Btu/h	21,500	24,200	27,300	30,700	34,100	38,200	42,700	48,000
	Heating	kW	7.1	8	9	10	11.2	12.5	14	16
		Btu/h	24,200	27,300	30,700	34,100	38,200	42,700	48,000	54,600
Power Input	Cooling	kW	0.1	0.1	0.1	0.15	0.15	0.15	0.15	0.15
	Heating	kW	0.1	0.1	0.1	0.15	0.15	0.15	0.15	0.15
Power Supply			220-240V, 1 Phase, 50Hz							
Current	Cooling	A	0.45	0.45	0.45	0.68	0.68	0.68	0.68	0.68
	Heating	A	0.45	0.45	0.45	0.68	0.68	0.68	0.68	0.68
Air Flow Rate	High	m3/h	1,200	1,200	1,200	1,800	1,800	1,800	1,800	1,800
		CFM	706	706	706	1,059	1,059	1,059	1,059	1,059
Noise Level	High/Medium/Low	dB(A)	42/39/36	42/39/36	42/39/36	45/42/38	45/42/38	45/42/38	45/42/38	45/42/38
Connecting Pipe	Gas	mm	15.88							
	Liquid	mm	9.52							
Dimension (WxDxH)	Net Dimension	mm	840×840×230				840×840×300			
	Packing Dimension	mm	945×945×285				945×945×355			
Net Weight		kg	24	24	24	29	29	29	29	29
Panel	Model		TPC-01ANC							
	Dimension (WxDxH)	mm	950×950×50							
	Packing Dimension (WxDxH)	mm	1,035×1,035×90							
	Net Weight	kg	6							
Drainage Pipe Diameter		mm	OD φ32							

Notes:

- \* Nominal capacities are based on the following conditions.
1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
  2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.



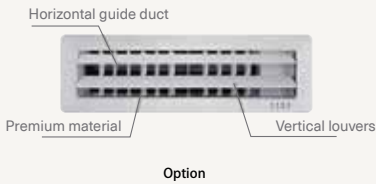
# Indoor Unit Features

## MAD018~080 series - Low Static Pressure Duct (AC)



Low static pressure duct (AC) has small space limitation because of the industry-leading 200 mm ultra-thin body, and supports two air return options, i.e. rear air return and bottom air return. The operating noise can be as low as 24 dB. Optional water pump and electric heating accessories. This unit can be easily installed in hotel guest rooms, restaurants and other spaces to create a comfortable environment.

- Slim body (200 mm) with two air return options, i.e. rear air return and bottom air return
- Precise temperature control within  $\pm 0.5^{\circ}\text{C}$  is realized via wire control and dual temperature detection control of the unit
- Optional original exquisite external panel
- Medium static pressure thin air duct design with wide static pressure range of 30~80 Pa. High air supply. The thinnest body (250mm) in the industry with the same capacity



# Indoor Unit Specifications

## Specifications

### MAD018 ~ 080 series - Low static pressure duct (AC)

Model			MAD018AMLNNA	MAD022AMLNNA	MAD025AMLNNA	MAD028AMLNNA	MAD032AMLNNA	MAD036AMLNNA
Capacity	Cooling	kW	1.8	2.2	2.5	2.8	3.2	3.6
		Btu/h	6,100	7,500	8,500	9,600	10,900	12,300
	Heating	kW	2.2	2.5	2.8	3.2	3.6	4.0
		Btu/h	7,500	8,500	9,600	10,900	12,300	13,600
Power Input	Cooling	kW	0.036	0.036	0.036	0.036	0.06	0.06
	Heating	kW	0.036	0.036	0.036	0.036	0.06	0.06
Power Supply			220-240V, 1 Phase, 50Hz					
Current	Cooling	A	0.18	0.18	0.18	0.18	0.28	0.28
	Heating	A	0.18	0.18	0.18	0.18	0.28	0.28
Air Flow Rate	High	m3/h	520	520	520	520	600	600
		CFM	306	306	306	306	353	353
External Static Pressure		Pa	13 (0~30)					
Noise Level	High/Medium/Low	dB(A)	32/27/24	32/27/24	32/27/24	32/27/24	35/29/26	35/29/26
Connecting Pipe	Gas	mm	9.52	9.52	9.52	9.52	12.7	12.7
	Liquid	mm	6.35	6.35	6.35	6.35	6.35	6.35
Dimension (WxDxH)	Net Dimension	mm	700×450×200					
	Packing Dimension	mm	901×533×271					
	Return Air Inlet Size (L×W)	mm	570×172					
	Air Outlet Size (L×W)	mm	510×140					
Net Weight		kg	14.5	14.5	14.5	14.5	15.5	15.5
Drainage Pipe Diameter		mm	OD φ25					

Model			MAD040AMLNNA	MAD045AMLNNA	MAD050AMLNNA	MAD056AMLNNA	MAD063AMLNNA	MAD071AMLNNA	MAD080AMLNNA
Capacity	Cooling	kW	4.0	4.5	5.0	5.6	6.3	7.1	8.0
		Btu/h	13,600	15,400	17,100	19,100	21,500	24,200	27,300
	Heating	kW	4.5	5.0	5.6	6.3	7.1	8.0	9.0
		Btu/h	15,400	17,100	19,100	21,500	24,200	27,300	30,700
Power Input	Cooling	kW	0.082	0.082	0.082	0.082	0.125	0.125	0.125
	Heating	kW	0.082	0.082	0.082	0.082	0.125	0.125	0.125
Power Supply			220-240V, 1 Phase, 50Hz						
Current	Cooling	A	0.38	0.38	0.38	0.38	0.6	0.6	0.6
	Heating	A	0.38	0.38	0.38	0.38	0.6	0.6	0.6
Air Flow Rate	High	m3/h	850	850	850	850	1,100	1,100	1,100
		CFM	500	500	500	500	647	647	647
External Static Pressure		Pa	13 (0~30)						
Noise Level	High/Medium/Low	dB(A)	39/32/29	39/32/29	39/32/29	39/32/29	35/31/28	35/31/28	35/31/28
Connecting Pipe	Gas	mm	12.7	12.7	12.7	12.7	15.88	15.88	15.88
	Liquid	mm	6.35	6.35	6.35	6.35	9.52	9.52	9.52
Dimension (WxDxH)	Net Dimension	mm	920×450×200				1,300×450×200		
	Packing Dimension	mm	1,121×533×271				1,535×530×265		
	Return Air Inlet Size (L×W)	mm	790×172				1,275×175		
	Air Outlet Size (L×W)	mm	730×140				1,135×150		
Net Weight		kg	19.5	19.5	19.5	19.5	27.5	27.5	27.5
Drainage Pipe Diameter		mm	OD φ25						

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

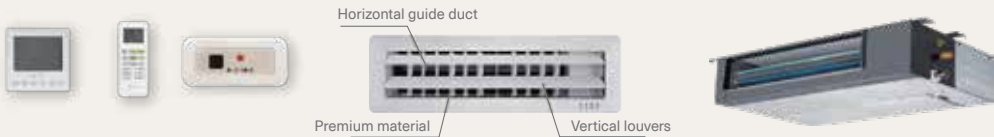
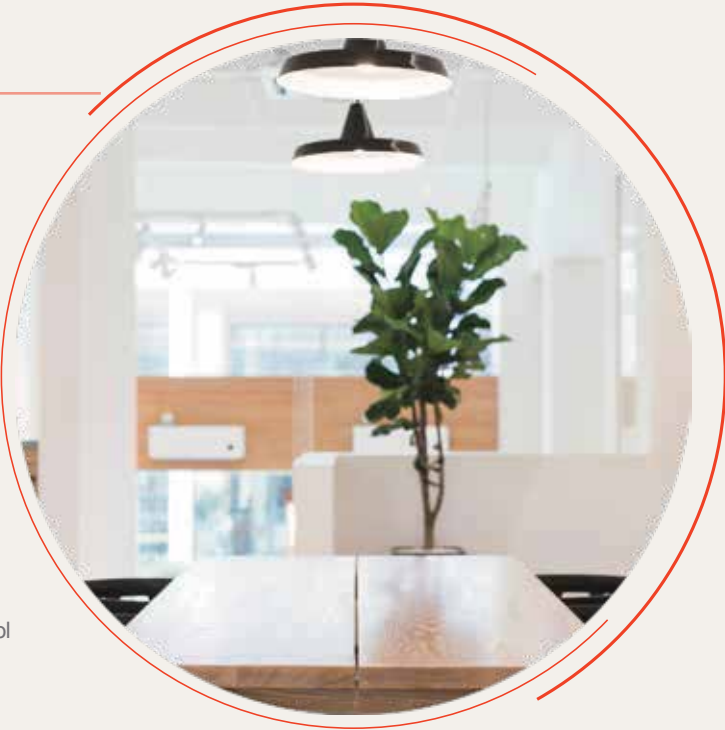
Indoor Unit Features

MAD018~080 series - Low Static Pressure Duct (DC)



Low static pressure duct (DC) with DC motor offers 7 adjustable air flow rates. Combined with noise reduction design, it can limit the operating noise as low as 22dB. The body is only 200 mm thick for little space requirements. Two air return options are available, i.e. rear air return and bottom air return. Optional water pump, electric heating and clean function accessories. This unit can be flexibly applied to a variety of environments such as stores, hotels, offices, lobbies, restaurants, etc. to create a comfortable environment for users.

- Slim body (200 mm) with two air return options, i.e. rear air return and bottom air return
- Precise temperature control within ±0.5 °C is realized via wire control and dual temperature detection control of the unit
- Optional original exquisite external panel
- 7 adjustable air flow rates supported by all DC motor, energy-saving and quietness design (noise level as low as 22 dB)



Indoor Unit Specifications

Specifications

MAD018 ~ 080 series - Low static pressure duct (DC)

Model			MAD018BMLNNA	MAD022BMLNNA	MAD025BMLNNA	MAD028BMLNNA	MAD032BMLNNA	MAD036BMLNNA
Capacity	Cooling	kW	1.8	2.2	2.5	2.8	3.2	3.6
		Btu/h	6,100	7,500	8,500	9,600	10,900	12,300
	Heating	kW	2.2	2.5	2.8	3.2	3.6	4.0
		Btu/h	7,500	8,500	9,600	10,900	12,300	13,600
Power Input	Cooling	kW	0.024	0.024	0.024	0.024	0.04	0.04
	Heating	kW	0.024	0.024	0.024	0.024	0.04	0.04
Power Supply			220-240V, 1 Phase, 50Hz					
Current	Cooling	A	0.11	0.11	0.11	0.11	0.19	0.19
	Heating	A	0.11	0.11	0.11	0.11	0.19	0.19
Air Flow Rate	High	m3/h	470	470	470	470	530	530
		CFM	277	277	277	277	312	312
External Static Pressure		Pa	13 (0~30)					
Noise Level	High/Medium/Low	dB(A)	30/27/22	30/27/22	30/27/22	30/27/22	32/28/25	32/28/25
Connecting Pipe	Gas	mm	9.52	9.52	9.52	9.52	12.7	12.7
	Liquid	mm	6.35	6.35	6.35	6.35	6.35	6.35
Dimension (WxDxH)	Net Dimension	mm	700×450×200					
	Packing Dimension	mm	901×533×271					
	Return Air Inlet Size (L×W)	mm	570×172					
	Air Outlet Size (L×W)	mm	510×140					
Net Weight		kg	16.5	16.5	16.5	16.5	16.5	16.5
Supplied Electronic Expansion Valve			DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08
Drainage Pipe Diameter		mm	OD φ25					

Model			MAD040BMLNNA	MAD045BMLNNA	MAD050BMLNNA	MAD056BMLNNA	MAD063BMLNNA	MAD071BMLNNA	MAD080BMLNNA
Capacity	Cooling	kW	4.0	4.5	5.0	5.6	6.3	7.1	8.0
		Btu/h	13,600	15,400	17,100	19,100	21,500	24,200	27,300
	Heating	kW	4.5	5.0	5.6	6.3	7.1	8.0	9.0
		Btu/h	15,400	17,100	19,100	21,500	24,200	27,300	30,700
Power Input	Cooling	kW	0.055	0.055	0.055	0.055	0.058	0.06	0.062
	Heating	kW	0.055	0.055	0.055	0.055	0.058	0.06	0.062
Power Supply			220-240V, 1 Phase, 50Hz						
Current	Cooling	A	0.26	0.26	0.26	0.26	0.27	0.28	0.29
	Heating	A	0.26	0.26	0.26	0.26	0.27	0.28	0.29
Air Flow Rate	High	m3/h	750	750	750	850	950	1100	1200
		CFM	441	441	441	500	559	647	706
External Static Pressure		Pa	13 (0~30)						
Noise Level	High/Medium/Low	dB(A)	36/32/27	36/32/27	36/32/27	36/33/28	36/33/29	37/34/29	39/35/30
Connecting Pipe	Gas	mm	12.7	12.7	12.7	12.7	15.88	15.88	15.88
	Liquid	mm	6.35	6.35	6.35	6.35	9.52	9.52	9.52
Dimension (WxDxH)	Net Dimension	mm	920×450×200				1,300×450×200		
	Packing Dimension	mm	1,121×533×271				1,501×533×271		
	Return Air Inlet Size (LxW)	mm	790×172				1,170×172		
	Air Outlet Size (LxW)	mm	730×140				1,110×140		
Net Weight		kg	19.5	19.5	19.5	19.5	30.5	30.5	30.5
Supplied Electronic Expansion Valve			DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)1.8C-08	DPF(TS6)2.2C-05	DPF(TS6)2.2C-05	DPF(TS6)2.2C-05
Drainage Pipe Diameter		mm	OD φ25						

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.



Indoor Unit Features

MAD090~140 series - Medium Static Pressure Duct



Medium static pressure duct adopts concealed design with ultra-thin body, requiring less installation space and meeting wider application range. Two air return options are available, i.e. bottom air return and rear air return. Optional water pump and electric heating accessories. Various air outlets are available to match different decoration styles. This unit is widely installed in stores, lobbies, offices, clubs and other spaces to create a comfortable environment.



Indoor Unit Specifications

Specifications

MAD022~160 series - Medium static pressure duct

Model		MAD022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR MADC022AMNNR																			
Capacity	Cooling	kW	2.2	2.5	2.8	3.2	3.6	4	4.5	5	5.6	6.3	7.1	8	9	10	11.2	12.5	14	15	16
		Btu/h	7500	8500	9600	10900	12300	13800	15400	17100	19100	21500	24200	27300	30700	34100	38200	42700	48000	51200	54800
	Heating	Btu/h	8550	9600	10900	12300	13800	15400	17100	19100	21500	24200	27300	30700	34100	38200	42700	48000	54600	54600	61400
Power Input	Cooling	kW	0.06	0.06	0.06	0.06	0.082	0.082	0.082	0.082	0.125	0.160	0.160	0.160	0.230	0.230	0.230	0.26	0.26	0.39	0.39
	Heating	kW	0.06	0.06	0.06	0.06	0.082	0.082	0.082	0.082	0.125	0.160	0.160	0.160	0.230	0.230	0.230	0.26	0.26	0.39	0.39
Power supply			220-240V, 1 Phase, 50Hz																		
Current	Cooling	A	0.28	0.28	0.28	0.28	0.38	0.38	0.38	0.38	0.6	0.74	0.74	0.74	1.2	1.2	1.2	1.3	1.3	1.78	1.78
	Heating	A	0.28	0.28	0.28	0.28	0.38	0.38	0.38	0.38	0.6	0.74	0.74	0.74	1.2	1.2	1.2	1.3	1.3	1.78	1.78
Air Flow Rate	High	m3/h	380	380	380	380	550	550	550	550	860	1100	1100	1100	1800	1800	1800	2000	2000	2200	2200
	CFM	224	224	224	224	324	324	324	324	506	648	648	648	648	1059	1059	1059	1177	1177	1296	1296
External Static Pressure		Pa	50 (30~80)																		
Noise Level		High/Medium/Low	38/34/34	38/34/34	38/34/34	38/34/34	42/39/39	42/39/39	42/39/39	42/39/39	42/39/39	42/37/37	44/42/39	44/42/39	44/42/39	44/42/39	44/42/39	44/42/39	44/42/39	54/46/43	54/46/43
Connecting Pipe	Gas	mm	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88
	Liquid	mm	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52
Dimension (WxDxH)	Net Dimension	mm	700x450x200	700x450x200	700x450x200	700x450x200	920x450x200	920x450x200	920x450x200	920x450x200	1300x450x200	1300x450x200	1300x450x200	1300x450x200	1400x700x250	1400x700x250	1400x700x250	1400x700x250	1400x700x250	1200x800x300	1200x800x300
	Packing Dimension	mm	901x533x271	901x533x271	901x533x271	901x533x271	1121x533x271	1121x533x271	1121x533x271	1121x533x271	1535x530x255	1115x655x340	1115x655x340	1115x655x340	1601x784x322	1601x784x322	1601x784x322	1601x784x322	1601x784x322	1405x800x375	1405x800x375
	Return Air Inlet size (LxW)	mm	570x172	570x172	570x172	570x172	790x172	790x172	790x172	790x172	1275x175	816x270	816x270	816x270	1365x220	1365x220	1365x220	1365x220	1365x220	1094x300	1094x300
	Air Outlet size (LxW)	mm	510x140	510x140	510x140	510x140	730x140	730x140	730x140	730x140	1135x150	713x179	713x179	713x179	1365x175	1365x175	1365x175	1365x175	1365x175	986x204	986x204
Net Weight		kg	15.5	15.5	15.5	15.5	19.5	19.5	19.5	19.5	27.5	27.5	27.5	27.5	42	42	42	44.5	44.5	45.5	45.5
Drainage Pipe Diameter		mm	OD ϕ25																		

Notes:

- \* Nominal capacities are based on the following conditions.
- Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
  - Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

MAF140~560 series - Fresh Air Processing Unit



Fresh air processing unit can replace indoor air with treated fresh air to effectively improve air quality. It can be flexibly assembled to meet the needs of multi-point air supply. 300 Pa high static pressure enables long-distance air supply. This unit is especially suitable for closed places with difficult ventilation design, e.g. cinemas, to provide users with a clean and fresh environment.

- The standard primary filter, PP filter, and the air outlet filter form a trio of effective filtration of impurities in the air
- Ultra-high static pressure design as high as 300 Pa satisfies various indoor installation needs
- The unit capacity can be up to 56 KW. Two or three fresh air handling units can be used in the same system
- It offers high air supply and can be matched with different types of air outlets



MAF140~560 series - Fresh air processing unit

Model			MAF140AMNNNA	MAF224AMNNNA	MAF280AMNNNA	MAF335AMNNNA	MAF450AMNNNA	MAF560AMNNNA
Capacity	Cooling	kW	14.0	22.4	28.0	33.5	45.0	56.0
		Btu/h	48,000	76,400	95,500	114,300	153,500	191,100
	Heating	kW	10.0	16.0	20.0	26.0	28.0	39.0
		Btu/h	34,100	54,600	68,200	88,700	95,500	133,100
Power Input	Cooling	kW	0.42	1.1	1.1	1.2	1.55	2.25
	Heating	kW	0.42	1.1	1.1	1.2	1.55	2.25
Power supply			220-240V, 1 Phase, 50Hz					
Current	Cooling	A	2	5.3	5.3	5.7	7.4	10.8
	Heating	A	2	5.3	5.3	5.7	7.4	10.8
Air Flow Rate	High	m3/h	2,050	3,000	3,000	3,500	4,000	6,000
		CFM	1207	1,766	1,766	2,060	2,354	3,531
External Static Pressure		Pa	100(50~130)	150(80~200)	150(80~200)	150(80~200)	200(100~300)	
Noise Level		dB(A)	45	53	53	54	56	60
Connecting Pipe	Gas	mm	15.88	25.4	25.4	25.4	28.6	
	Liquid	mm	9.52	12.7				
Dimension	Net Dimension	mm	1,200×590×380	1,366×758×470	1,366×758×470	1,366×758×470	1,770×758×650	
	Packing Dimension	mm	1,410×695×435	1,620×975×700	1,620×975×700	1,620×975×700	2,010×975×910	
	Return Air Inlet size (L×W)	mm	1,100×308	1,240×460				
	Air Outlet size (L×W)	mm	850×220	1,030×300				
Net Weight		kg	58	120	120	120	1,470×330	1,470×330
Drainage Pipe Diameter		mm	OD φ25					

Notes:

- \* Nominal capacities are based on the following conditions.
- Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
  - Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

Indoor Unit Features

MAD056~560 series - High Static Pressure Duct



High static pressure duct is designed for ultra-high static pressure up to 300 Pa. It can supply air at multiple points over long distances, meeting the air conditioning needs of various spaces. This unit is widely used in large spaces such as factories, restaurants, shopping malls, etc. Fresh air can be drawn in by the unit, which creates a clean and comfortable environment.

- The standard primary filter, PP filter, and the air outlet filter form a trio of effective filtration of impurities in the air
- Ultra-high static pressure design as high as 300 Pa satisfies various indoor installation needs
- The unit capacity can be up to 56 KW. Two or three fresh air handling units can be used in the same system
- It offers high air supply and can be matched with different types of air outlets



Indoor Unit Specifications

Specifications

MAD056 ~ 560 series - High static pressure duct

Model			MAD056AMHNNA	MAD063AMHNNA	MAD071AMHNNA	MAD080AMHNNA	MAD090AMHNNA	MAD100AMHNNA	MAD112AMHNNA
Capacity	Cooling	kW	5.6	6.3	7.1	8.0	9.0	10.0	11.2
		Btu/h	19,100	21,500	24,200	27,300	30,700	34,100	38,200
	Heating	kW	6.3	7.1	8.0	9.0	10.0	11.2	12.5
		Btu/h	21,500	24,200	27,300	30,700	34,100	38,200	42,700
Power Input	Cooling	kW	0.28					0.42	
Power Supply	Heating	kW	0.28					0.42	
	220-240V, 1 Phase, 50Hz								
Current	Cooling	A	1.4					2	
	Heating	A	1.4					2	
Air Flow Rate	High	m3/h	1,260					1,860	2,020
		CFM	742					1,095	1,189
External Static Pressure		Pa	100(50~130)						
Noise Level	High/Medium/Low	dB(A)	50					53	
Connecting Pipe	Gas	mm	15.88						
	Liquid	mm	9.52						
Dimension (WxDxH)	Net Dimension	mm	850×590×380					1,200×590×380	
	Packing Dimension	mm	1,060×695×425					1,410×695×435	
	Return Air Inlet Size (LxW)	mm	708×308					1,100×308	
	Air Outlet Size (LxW)	mm	430×220					850×220	
Net Weight		kg	49					58	
Drainage Pipe Diameter		mm	OD φ25						

Model			MAD125AMHNNA	MAD140AMHNNA	MAD220AMHNNA	MAD280AMHNNA	MAD450AMHNNA	MAD560AMHNNA
Capacity	Cooling	kW	12.5	14.0	22.0	28.0	45.0	56.0
		Btu/h	42,700	48,000	75,100	95,500	153,500	191,100
	Heating	kW	14.0	16.0	28.0	31.0	50.0	61.0
		Btu/h	48,000	54,600	95,500	105,800	170,600	208,100
Power Input	Cooling	kW	0.42		1.75		2.25	
	Heating	kW	0.42		1.75		2.25	
Power Supply			220-240V, 1 Phase, 50Hz					
Current	Cooling	A	2		8.85	8.85	11.36	11.36
	Heating	A	2		8.85	8.85	11.36	11.36
Air Flow Rate	High	m3/h	2,150	2,300	4,500	4,500	7,500	7,500
		CFM	1,265	1,354	2,649	2,649	4,414	4,414
External Static	Pressure	Pa	100(50~130)			200(100~300)		
Noise Level	High/Medium/Low	dB(A)	53			55	55	61
Connecting Pipe	Gas	mm	15.88			22.2		28.6
	Liquid	mm	9.52			12.7		
Dimension (WxDxH)	Net Dimension	mm	1,200×590×380			1,366×758×470		1,770×758×650
	Packing Dimension	mm	1,410×695×435			1,620×975×930		2,035×975×1170
	Return Air Inlet Size (LxW)	mm	1,100×308			1,240×460		1,645×638
	Air Outlet Size (LxW)	mm	850×220			1,205×300		1,470×330
Net Weight		kg	58			120		220
Drainage Pipe Diameter		mm	OD φ25					

- Notes:
- \* Nominal capacities are based on the following conditions.
1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
  2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.



Indoor Unit Features

MAZ045~140 series - Ceiling & Floor



Elegant and modern design due to the streamline panel. Unique swing design realizes three-dimensional air supply. It supports different installation methods such as ceiling-suspended and floor-standing, and allows for quick installation and easy cleaning and maintenance. This unit is widely installed in stores, offices, lobbies, restaurants and other spaces to create a comfortable working and living environment.

- Ceiling-suspended and floor-standing installation methods are available
- Streamline design, all-round air supply
- Precise temperature control within ±0.5 °C is realized via wire control and dual temperature detection control of the unit



Indoor Unit Specifications

Specifications

MAZ045 ~ 140 series - Ceiling & Floor

Model			MAZ045AMNNNA	MAZ050AMNNNA	MAZ056AMNNNA	MAZ063AMNNNA	MAZ071AMNNNA	MAZ080AMNNNA	MAZ090AMNNNA	MAZ100AMNNNA	MAZ112AMNNNA	MAZ125AMNNNA	MAZ140AMNNNA
Capacity	Cooling	kW	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0
		Btu/h	15,400	17,100	19,100	21,500	24,200	27,300	30,700	34,100	38,200	42,700	48,000
	Heating	kW	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
		Btu/h	17,100	19,100	21,500	24,200	27,300	30,700	34,100	38,200	42,700	48,000	54,600
	Cooling	kW	0.102	0.102	0.102	0.149	0.149	0.149	0.158	0.158	0.158	0.235	0.235
	Heating	kW	0.102	0.102	0.102	0.149	0.149	0.149	0.158	0.158	0.158	0.235	0.235
Power Supply			220-240V, 1 Phase, 50Hz										
Current	Cooling	A	0.46	0.46	0.46	0.68	0.68	0.68	0.72	0.72	1.07	1.07	1.07
	Heating	A	0.46	0.46	0.46	0.68	0.68	0.68	0.72	0.72	1.07	1.07	1.07
Air Flow Rate	High	m3/h	960	960	960	1,200	1,200	1,200	1,600	1,600	2,000	2,000	2,000
		CFM	565	565	565	706	706	706	942	942	1177	1177	1177
Noise Level	High/Medium/Low	dB(A)	44/42/39	44/42/39	44/42/39	46/44/41	46/44/41	46/44/41	50/48/45	50/48/45	52/50/47	52/50/47	52/50/47
Connecting Pipe	Gas	mm	12.7	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88
	Liquid	mm	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52
Dimension (WxDxH)	Net Dimension	mm	1055×675×235	1055×675×235	1055×675×235	1055×675×235	1055×675×235	1055×675×235	1275×675×235	1275×675×235	1635×675×235	1635×675×235	1635×675×235
	Packing Dimension	mm	1131×753×313	1131×753×313	1131×753×313	1131×753×313	1131×753×313	1131×753×313	1351×753×313	1351×753×313	1711×753×313	1711×753×313	1711×753×313
Net Weight		kg	24	24	24	25	25	25	29	29	38	38	38
Drainage Pipe Diameter		mm	OD φ25										

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

MAW022~080 series - Wall-mounted



Wall-mounted unit has an aesthetic, concise and space-saving design with a body thickness of only 206 mm. The operating noise can be as low as 27 dB because of comprehensive noise reduction design. Long-lasting filters feature long cleaning cycle and is easy to disassemble and clean. This unit is widely used in restaurants, study rooms, hotels, clubs, etc., providing a comfortable working and living environment.

- Super-quiet operation by using large blade fan wheel to make noise as low as 27 dB
- Ultra-thin body design (206 mm) is a perfect match with interior decoration
- Ultra-wide air supply range, top & bottom air deflectors
- Precise temperature control within ±0.5 °C is realized via wire control and dual temperature detection control of the unit



MAW022 ~ 080 series - Wall-mounted











Model			MAW022AMNNNA	MAW028AMNNNA	MAW036AMNNNA	MAW045AMNNNA	MAW050AMNNNA	MAW056AMNNNA	MAW063AMNNNA	MAW071AMNNNA	MAW080AMNNNA
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8.0
		Btu/h	7,500	9,600	12,300	15,400	17,100	19,100	21,500	24,200	27,300
	Heating	kW	2.5	3.2	4.0	5.0	5.6	6.3	7.1	8.0	9.0
		Btu/h	8,500	10,900	13,600	17,100	19,100	21,500	24,200	27,300	30,700
Power Input	Cooling	kW	0.040	0.040	0.040	0.045	0.045	0.070	0.070	0.070	0.070
	Heating	kW	0.040	0.040	0.040	0.045	0.045	0.070	0.070	0.070	0.070
Power Supply			220-240V, 1 Phase, 50Hz								
Current	Cooling	A	0.19	0.19	0.19	0.20	0.20	0.32	0.32	0.32	0.32
	Heating	A	0.19	0.19	0.19	0.20	0.20	0.32	0.32	0.32	0.32
Air Flow Rate	High	m3/h	550	550	550	650	650	800	800	800	800
		CFM	324	324	324	383	383	471	471	471	471
Noise Level	High/Medium/Low	dB(A)	38/33/27	38/33/27	38/33/27	42/37/33	42/37/33	44/39/35	44/39/35	44/39/35	44/39/35
Connecting Pipe	Gas	mm	12.7(3/4)	12.7(3/4)	12.7(3/4)	12.7(3/4)	12.7(3/4)	15.88(7/8)	15.88(7/8)	15.88(7/8)	15.88(7/8)
	Liquid	mm	6.35(7/16)	6.35(7/16)	6.35(7/16)	6.35(7/16)	6.35(7/16)	9.52(5/8)	9.52(5/8)	9.52(5/8)	9.52(5/8)
Dimension (WxDxH)	Net Dimension	mm	910×294×206						1,010×315×220		
	Packing Dimension	mm	979×372×277						1,096×390×297		
Net Weight		kg	10						13		
Drainage Pipe Diameter		mm	OD φ16								

Notes:

\* Nominal capacities are based on the following conditions.

1. Cooling: indoor temperature: 27°C DB, 19°C WB; outdoor temperature: 35°C DB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.
2. Heating: indoor temperature: 20°C DB; outdoor temperature: 7°C DB, 6°C WB; pipe length: 5m; height difference between indoor and outdoor units: 0 m.

Indoor unit range

Name	Round flow cassette	2-way cassette	1-way cassette	Low Static Pressure Duct (AC)	Low Static Pressure Duct (DC)	Medium Static Pressure Duct	High Static Pressure Duct	Fresh Air Processing Unit	Ceiling & floor	Wall-mounted
Exterior										
18			●	●	●					
22	●	●	●	●	●	●				●
25	●			●	●	●				
28	●	●	●	●	●	●				●
32	●			●	●	●				
36	●	●	●	●	●	●				●
40	●			●	●	●				
45	●	●	●	●	●	●			●	●
50	●	●	●	●	●	●			●	●
56	●	●	●	●	●	●	●		●	●
63	●	●		●	●	●	●		●	●
71	●	●		●	●	●	●		●	●
80	●			●	●	●	●		●	●
90	●					●	●		●	
100	●					●	●		●	
112	●					●	●		●	
125	●					●	●		●	
140	●					●	●	●	●	
150						●				
160						●				
220							●			
224								●		
280							●	●		
335								●		
450							●	●		
560							●	●		

Controllers

Standard

TM-TB0E wire controller

Buttons: touch buttons  
LCD: display in English, with Celsius / Fahrenheit conversion  
Wiring method: reserved connector, need to be wired after delivery  
Dimension: Panel (86\*86mm)  
Functions:

- Available operation modes include Automatic / Cooling / Dehumidifying / Air supply / Heating
- Breeze, Self-cleaning, Energy saving, Sleep, Silent functions
- Up & down and left & right swing
- Timer, Child lock, Power-down memory functions
- Fault code display, parameter spot check, parameter setting
- Built-in infrared receiver for remote control



RC-TA0E/RC-TB0E remote controller

- Cooling / Dehumidification / Air supply / Heating / Automatic and other operation modes.
- Temperature / Wind speed setting.
- Sleep / Timer / Sweeping / Strong function settings.



Options

TM-TA0E wire controller

Buttons: touch buttons  
LCD: display in English, with Celsius / Fahrenheit conversion  
Dimension: Panel (86\*86mm), thickness (36.5 mm), LCD (67\*50mm)  
Functions:

- Available operation modes include Automatic / Cooling / Dehumidifying / Air supply / Heating
- Breeze, Self-cleaning, Energy saving, Sleep, Silent functions
- Up & down and left & right swing
- Timer, Child lock, Power-down memory functions
- Fault code display, parameter spot check, parameter setting
- Built-in infrared receiver for remote control



Access card control module

- Two power supply modes are available by plugging in the access card, i.e., AC220V 50Hz or DC5V, which cannot be used at the same time
- When using the AC 220V 50Hz power supply, pay attention to the neutral wire / live wire of the power supply. The power switch requires control of its live wire
- When using the DC5V power supply, ensure the correct polarity of the power supply. Incorrect connection of +5V and GND should be avoided.



TS-T70E 7" centralized controller

- Control up to 256 indoor units
- Weekly schedule setting
- Single unit control, group control, full control
- Automatic scanning and adding function for initial configuration of indoor units
- Data backup and recovery function



DP-T10E display light board

- Energy saving, environmental protection, high reliability
- Self-contained buzzer with operation reminders
- Environmentally friendly dual seven-segment digital display can display the indoor unit set temperature, timing, fault code display lamp
- Simple, energy-saving LED displays the unit operating status: running lamp, timing lamp, anti-cold wind lamp, fault lamp
- Emergency switch: On/Off operation by simply pressing the button
- Infrared receiver for remote control: meet the customer's remote control of On/Off and other operations
- Due to its compact size and soft light, it can be easily installed in markets or bedrooms, halls and other places, which does not affect sleep





# Intelligent Control & Management

## Controller Lineup

### Controller lineup - Central Control

