Welcome to Condor Electronics Centralized Air Conditioning Solutions

Since its inception in **2006, Condor's Centralized Air Conditioning Business Unit** has been at the forefront of providing state-of-the-art **HVAC systems** that perfectly blend **performance, efficiency**, and **sustainability**.

With a deep-rooted expertise in **sales, engineering, installation**, and **after-sales service**, we pride ourselves on delivering tailored solutions that meet the unique **demands of our clients**.

Our unwavering commitment to **quality and innovation** ensures that we offer **energy-efficient** and **environmentally friendly solutions**, setting new standards in the HVAC industry.

At **Condor**, we don’t just meet your expectations—we exceed them.

Explore the future of comfort with us today!

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Note:
Condor is committed to continuously improving its products to ensure the highest quality and reliability standards, and to meet local regulations and market requirements.
All features and specifications are subject to change without prior notice.
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2025

T1/T3

Chillers & Air Side Products

Air Chillers, FCUs, AHUs, DX AHUs
Air Curtains, Control Valves

Index

Small Capacity Modular Air-cooled Scroll Chillers

R410A

Appearance

Classic D Series

65/80kW

130/160kW

249/280/320/325kW

Golden fin condenser | Inner groove copper | Modular structure | Comprehensive protection | Self-diagnosis | Easier maintainability | Memory function | Easier maintainability | 24 hour timer

- Running condition real-time display.
- Low start-up current thanks to power delay control design.
- Unique compressor alternation operation technology largely prolong the lifespan of compressor.
- Double-flow design makes a higher heat exchange efficiency.
- Special top cover design: make a better cooling capacity of 5% improvement and higher heat exchanging efficiency of 3% improvement.
- Main module patent: any unit can be set as main module via wired controller.
- Up to 16 units (60/71kW) or 8 units (120/145kW) can be integrated freely to get a max capacity of 1160kW thanks to modular design.
- Auto anti-freezing function under heating mode when the unit is switched off.

Nominal Conditions

Item	Water side (water temperature)				Air side (outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~6	35	–	15~45
Heating	40	45	40~50	2.5~6	7	6	-15~24

Technical Specifications

Model	Heat pump		LSQWRF65M/NaD-M	LSQWRF80M/NaD-M	LSQWRF130M/NaD-M	LSQWRF160M/NaD-M
Capacity	Cooling/Heating	kW	60/65	71/79.5	120/130	145/170
		RT	17.0/18.5	20.2/22.6	34.1/37.0	41.2/48.3
Capacity steps		%	0-50-100	0-50-100	0-25-50-75-100	0-25-50-75-100
EER/COP		W/W	2.84/3.09	2.76/2.94	2.84/2.93	2.74/3.04
Power supply		Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	21.1	25.7	42.3	53.0
	Heating	kW	21.0	27.0	44.4	56.0
Compressor	Type	–	Hermetic scroll	Hermetic scroll	Hermetic scroll	Hermetic scroll
	Starting mode	–	Direct starting	Direct starting	Direct starting	Direct starting
	Quantity	–	2	2	4	4
Water side heat exchanger	Type	–	High-efficient shell and tube heat exchanger			
	Water flow volume	L/s	2.9	3.4	5.7	6.9
		GPM	45.0	54.0	91.0	110.0
	Pressure drop	kPa	15	20	30	35
		ft.WG	4.9	6.6	9.8	11.5
	Connection pipe	–	DN65	DN65	DN80	DN80
Air side heat exchanger	Type	–	High-efficient fin tube type heat exchanger			
	Fan type and quantity	–	axial×2	axial×2	axial×4	axial×4
	Total fan air flow	L/s	0.75×10^4	0.83×10^4	1.5×10^4	1.67×10^4
		CFM	1.59×10^4	1.76×10^4	3.18×10^4	3.53×10^4
	Total fan motor power	kW	0.65×2	0.95×2	0.65×4	0.95×4
Sound pressure level		dB(A)	70	71	72	74
Dimension	Outline(W×D×H)	mm	2040×1000×2230	2040×1000×2230	2226×1650×2230	2226×1650×2230
	Package(W×D×H)	mm	2120×1080×2230	2120×1080×2230	2306×1730×2230	2306×1730×2230
Net/Gross/Operating weight		kg	710/715/781	760/765/836	1256/1261/1382	1440/1445/1584
Loading quantity	40'GP/40'HQ	set	10/10	10/10	6/6	6/6

Note: The specification is tested under the connection pipe of 7.5 meters.

Model	Heat pump		LSQWRF249M/NaD-M	LSQWRF280M/NaD-M	LSQWRF320M/NaD-M
Capacity	Cooling/Heating	kW	249/275	280/325	320/360
		RT	70.8/78.2	79.6/92.4	91/102
Capacity steps		%	0-25-50-75-100	0-25-50-75-100	0-25-50-75-100
EER/COP		W/W	2.95/3.25	2.85/3.1	2.96/3.16
Power supply		Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	84.4	98.2	108
	Heating	kW	84.6	104.8	114
Compressor	Type	–	Hermetic scroll	Hermetic scroll	Hermetic scroll
	Starting mode	–	Direct starting	Direct starting	Direct starting
	Quantity	–	4	4	4
Water side heat exchanger	Type	–	High-efficient shell and tube heat exchanger		
	Water flow volume	L/s	11.89	13.39	15.3
		GPM	189	212	241.7
	Pressure drop	kPa	75	85	85
		ft.WG	24.6	28	28
	Connection pipe	–	DN100	DN100	DN100
Air side heat exchanger	Type	–	High-efficient fin tube type heat exchanger		
	Fan type and quantity	–	axial×8	axial×8	axial×8
	Total fan air flow	L/s	$8x1.4\times10^4$	$8x1.57\times10^4$	$8x1.57\times10^4$
		CFM	$8x0.82\times10^4$	$8x0.92\times10^4$	$8x0.92\times10^4$
	Total fan motor power	kW	0.65×8	0.75×8	0.75×8
Sound pressure level		dB(A)	67	69	72
Dimension	Outline(W×D×H)	mm	3980x2260x2450	3980x2260x2450	3980x2260x2450
	Package(W×D×H)	mm	4040x2260x2450	4040x2260x2450	4040x2260x2450
Net/Gross/Operating weight		kg	2985/2995/3284	3278/3288/3606	3380/3390/3718
Loading quantity	40'GP/40'HQ	set	2/2	2/2	2/2

Note:

①Working conditions of cooling: Leaving chilled water temperature 7°C, water flow volume: 0.172 m3/h per kW cooling capacity, outdoor ambient temperature 35°C (DB).

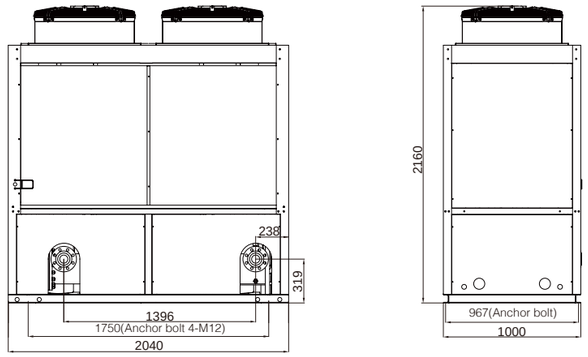
②Working conditions of heating: Leaving water temperature 45°C, water flow volume: 0.172 m3/h per kW cooling capacity, outdoor ambient temperature 7°C (DB) / 6°C (WB).

③ For specific parameters, please refer to the product nameplate.

④ For Connection pipe*, if the size ≥DN65, the connector is of flange type, if the size < DN65, the connector is of external thread type.

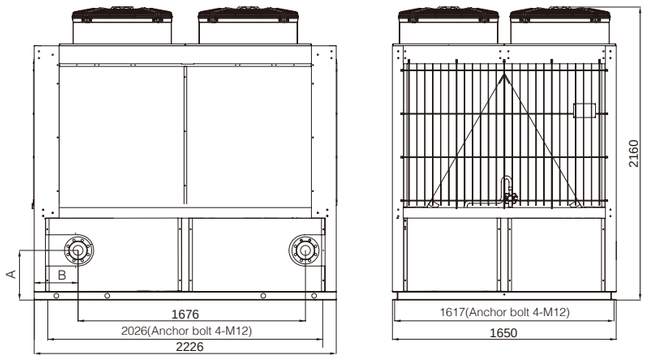
Dimensions

LSQWRF65M/NaD-M, LSQWRF65M/NaD-M(FB01), LSQWRF80M/NaD-M (Unit: mm)



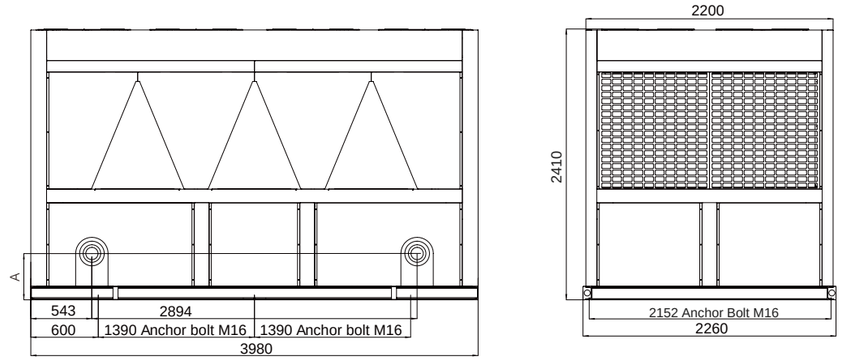
LSQWRF130M/NaD-M, LSQWRF130M/NaD-M(FB01), LSQWRF160M/NaD-M, LSQWRF160M/NaD-M(FB01) (Unit: mm)

Model	A	B
LSQWF130M/NaD-M	366	323
LSQWRF130M/NaD-M(FB01)	366	323
LSQWRF160M/NaD-M	403	337
LSQWRF160M/NaD-M(FB01)	403	337



Dimensions

LSQWRF249M/NaD-M, LSQWRF280M/NaD-M, LSQWRF320M/NaD-M, LSQWF325M/NaD-H (Unit: mm)



Model	A
LSQWRF249M/NaD-M	411
LSQWRF280M/NaD-M	445
LSQWRF320M/NaD-M	445

Large Capacity Modular Air-cooled Scroll Chillers

Appearance

T Series: 340/460kW

S series: 340/410/480/550kW

Golden fin condenser

Inner groove copper

Modular structure

Comprehensive protection

Self-diagnosis

Easier maintainability

Memory function

Easier maintainability

24 hour timer

Product Overview

1.Functionality:

Utilizes air as the heat/cold source and water as the heat transfer medium.

Replaces traditional boilers, providing cooling in summer and heating in winter.

2.Design Advantages:

Flexible layout, space-saving, and aesthetically pleasing.

Low operating noise, making it suitable for central air conditioning systems.

3. Flexible Investment and Installation:

Offers flexible equipment investment and simple engineering installation, ideal for central air conditioning projects.

4.Improved Capacity and Efficiency:

New generation design with larger cooling capacity per single unit, reducing the number of units needed for installation in space-constrained projects.

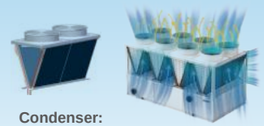
5. Modular Combination and Scalability:

Supports up to 8 units for free combination, meeting diverse cooling capacity needs.

Allows phased equipment installation, enabling easy expansion for future requirements.

High-end and high-quality configuration

Condenser:
New V-shaped fin heat exchanger, utilizing CFD simulation to optimize the angle, resulting in more uniform airflow organization and a 30% increase in efficiency.



Condenser:
New V-shaped fin heat exchanger, utilizing CFD simulation to optimize the angle, resulting in more uniform airflow organization and a 30% increase in efficiency.

Compressor:
It adopts an internationally renowned brand compressor, featuring high efficiency, low noise, strong liquid hammer resistance, and a long service life.

Expansion Valve:
Adopting a 500-pulse high-precision electronic expansion valve to achieve 100% precise adjustment and instant response to refrigerant flow demand.

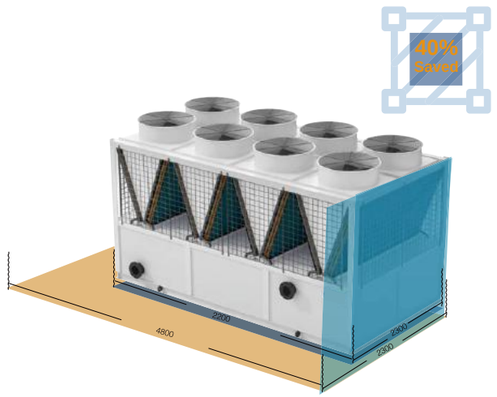
Expansion Valve:
Adopting a 500-pulse high-precision electronic expansion valve to achieve 100% precise adjustment and instant response to refrigerant flow demand.

Space-saving, simplified installation

Compared with traditional modular air-cooled chiller (heat pump) units, scroll air-cooled chiller (heat pump) units offer larger single unit capacity and more compact structure, saving over 100% of floor space and significantly reducing the number of piping connections for equipment installation.

Small Capacity Modular Air Cooled Chillers Formed Group

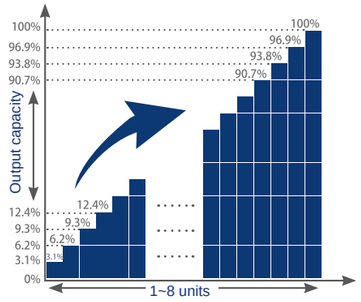
VS



Large Capacity Modular Air Cooled Chiller

Partial load, higher efficiency

A single module has multi-level energy adjustment, allowing for expansion of 1 to 8 modules. The system automatically calculates the operating load, matches the operating capacity, humanizes the allocation of the operating time of each system, ensures that the system maintains the best operating state, and improves the reliability and efficiency of the unit.



Stable and Reliable

Based on the system load, the unit rotates and prioritizes the startup of module units, evenly distributing the operating time of each module unit, which greatly improves the reliability and hardware lifespan of the unit.

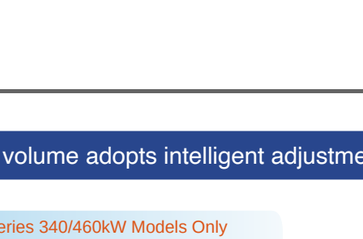
Air volume adopts intelligent adjustment, Ultra-wide operatition range from -15°C to 48°C.*

*For T series 340/460kW Models Only

The unit utilizes internationally renowned brand multi-speed adjustable low-noise axial fans, enabling intelligent air volume adjustment. This allows it to quickly match load changes, effectively preventing frequent starts and stops of the fan, and ensuring stable and efficient system operation. The unit breaks through the operating range limit of traditional four-pipe systems in the industry and can operate stably in ambient temperatures ranging from -15°C to 48°C.

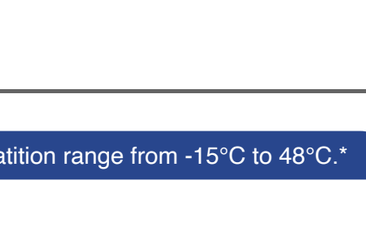
T sereis: 340/460kW

ULTRAWIDE Temperature Range



Ultra Wide opearation temperature range

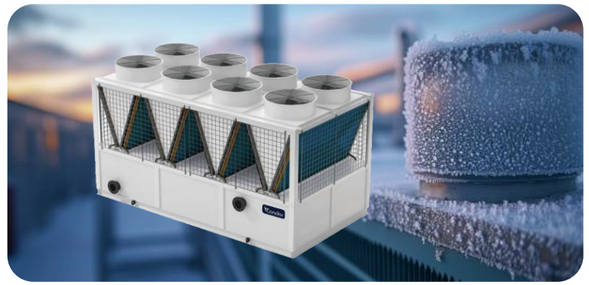
S series: 340/410/480/550kW

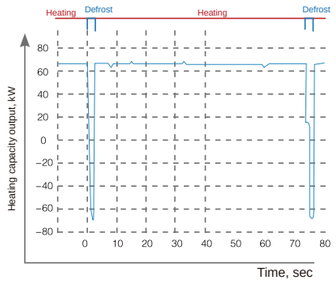


Opearation temperature range (480/550kW Model)

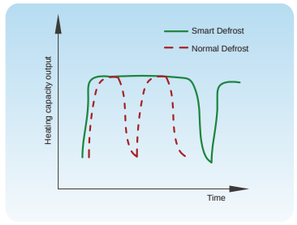
Self-learning Defrosting Patent Technology

During heating operation, through the independently developed "SD" (SELF-DEFROSTING) self-learning system, the frosting condition of the intelligent modular unit is accurately judged, and an automatic defrosting effect is achieved, ensuring the reliability of the unit during heating operation.





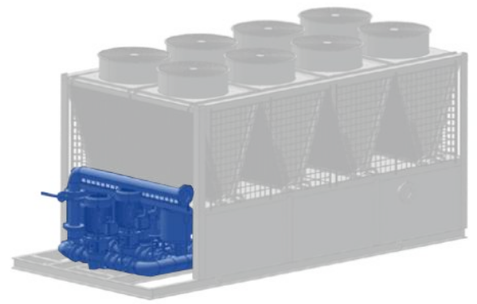
Patented defrosting technology: The control system comprehensively judges the defrosting conditions based on parameters such as ambient temperature, evaporation temperature, and running time during heating operation, ensuring efficient defrosting when there is frost and stable heating when there is no frost. The heating operation rate of the unit reaches over 90%, and the heating energy efficiency ratio is significantly improved.



Integrated wtih hydraulic module (optional**)

*For S series 340/410/480/550kW Models Only

The unit can provide an integrated hydraulic module distribution system, which prefabricates and assembles the chilled water system in the factory. On-site, only chilled water pipelines and power supplies need to be connected. It can be powered up and used within two or three days, with less workload, simple installation, low overall installation cost, shortened commissioning time, and more than 40% reduction in equipment room land investment costs. For energy-saving renovation of old equipment projects, it can easily achieve rapid replacement.

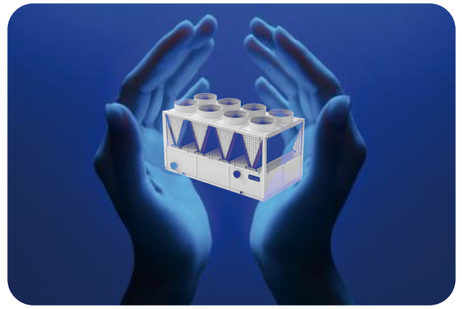


More comprehensive protection functions

The unit program comes with multiple protection functions to ensure its stable and reliable operation. Full range of environmentally friendly modular units are equipped with water flow switches as standard, eliminating the installation and commissioning of water flow switches in the project. This not only brings higher guarantees for the safe operation of the unit, but also simplifies the relevant work and expenses in the project, bringing benefits and convenience to customers.

List of improved functions

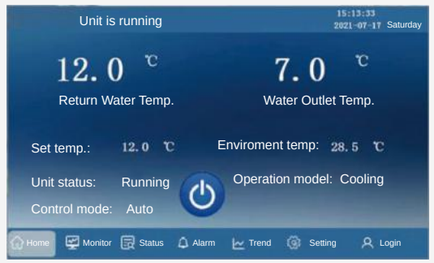
- Communication Fault Protection
- Sensor Fault Protection
- Exhaust Over Temperature Protection
- Frequent Start Protection
- Compressor Overcurrent Protection
- Balanced Wear
- Compressor Undercurrent Protection
- High Pressure Protection
- Outlet Water Low Temperature Protection
- Low Pressure Protection
- Outlet Water Over Temperature Protection
- Fan Overload Protection
- Phase Sequence Protection
- Insufficient Water Flow Protection
- Automatic Anti-freeze Protection



Smart Control Center

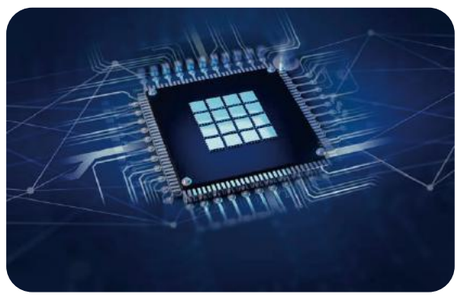
Interactive interface

Adopting a user-friendly human-machine interaction control interface, a 7-inch full touch screen, intuitive parameters, simple operation, and complete control functions: it achieves energy control, automatic operation, intelligent defrosting, balanced operation, power-off memory, and other controls.



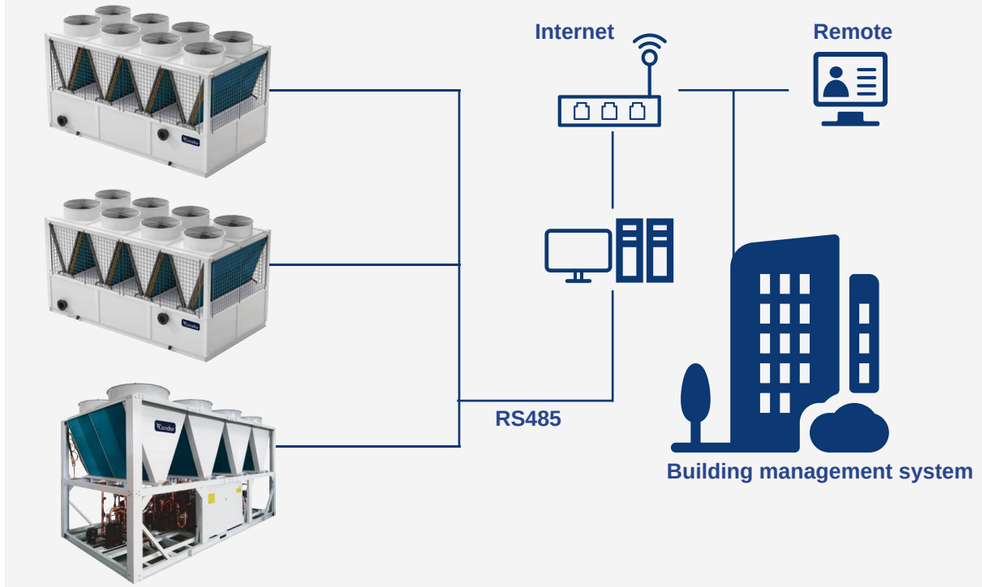
Interactive interface

The unit can automatically memorize and store the data and operating status before power failure. After the power is restored, the unit will automatically resume the operating status before power failure without resetting, which is convenient for users to use and manage.



Intelligent cloud platform function

The optional intelligent cloud system features diverse control methods. Users can monitor the unit's operating status and parameters in real-time through a mobile app. It has functions such as automatic protection, remote detection, remote control, and self-diagnosis, reducing economic losses caused by downtime risks during user operation. It adopts the RS485 standard communication interface and open protocol, enabling remote modular monitoring and control through the network, and can be easily integrated into building automation systems.



Nominal Conditions

T Series

Item	Water side (water temperature)				Air side (outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~20	2.5~6	35	–	-15~48 Ultra Wide
Heating	40	45	30~50	2.5~6	7	6	-15~48 Ultra Wide

S Series

Item	Water side (water temperature)				Air side (outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~20	2.5~6	35	–	10~48
Heating	40	45	30~50	2.5~6	7	6	-15~25

T Series

Technical Specifications

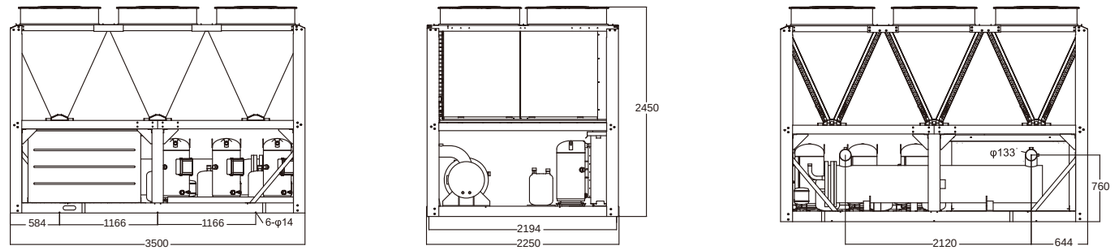
Model Number			CTAS340BHA-TM	CTAS460BHA-TM
Capacity	Cooling	KW	340	460
	Heating	KW	370	485
Power Input	Cooling	KW	109	148.3
	Heating	KW	115	151.5
Running Current	Cooling	A	190.3	256.6
	Heating	A	201.4	272
Power supply		V/N/Hz		
Maximum Input Power		kW	145.8	197.8
Maximum Input Current		A	255	340
Starting Current		A	319	417
Energy Regulation		%	0-33.3-66.7-100	0-25-50-75-100
Water Side Heat Exchanger	Type	-	High efficient shell & tube heat exchanger	
	Water flow	m³/h	58.5	79.1
	Pressure drop	kPa	52	56
	Inlet/Outlet	DN	125	125
	Connection method	-	Victaulic connection	
Compressor	Brand	-	Copeland	Copeland
	Type	-	Scroll	Scroll
	Quantity	-	3	4
Fan	Type		Axial fan	Axial fan
	Air flow	m³/h	123000	164000
	Quantity		6	8
Refrigerant	Type	-	R410A	
Unit Dimensions (L*W*H)		mm	3500x2250x2450	4700x2250x2520
Packaging Dimensions (L*W*H)		mm	3560x2310x2450	4760x2310x2520
Net weight		kg	3100	3700
Running weight		kg	3550	4200
Sound Level		dB	74	74

Remarks:

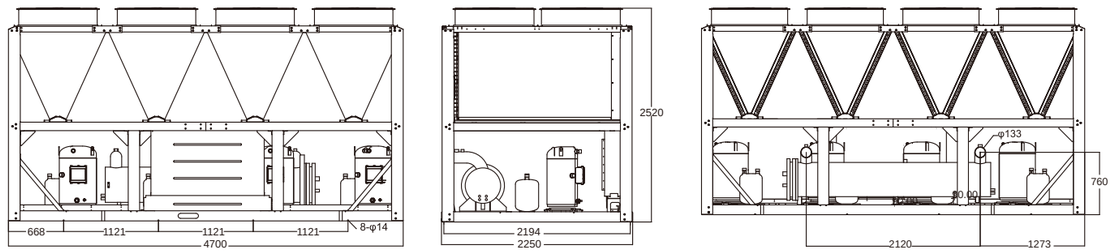
1. The nominal cooling capacity and nominal cooling input power are tested at the rated water flow, water outlet temperature of 7°C, and outdoor dry-bulb temperature of 35°C.
The nominal heating capacity is tested at the rated water flow, water outlet temperature of 45°C, outdoor dry-bulb temperature of 7°C or outdoor wet-bulb temperature of 6°C.
2. About 6% loss caused by system pipelines, water pumps, valves, and dirt after unit installation shal be considered for the cooling （heating） capacity in actual application.
3. Cooling temperature range: -15°C-48°C（CTAS340BHA/460BHA）
Heating temperature range： -15°C-48°C （CTAS340BH/460BH/340BHA/460BHA）.
4. The specifications above are based on a single module. Multiple modules can be used in combination. A maximum of 8 modules can be combined.
5. As a separate item, control accessory box contains a wired controller, a wired controller communication cable, user manual, and temperature sensor. The configuration is subject to changes, so please refer to actual unit upon delivery.

Dimensions

CTAS340BHA-TM



CTAS460BHA-TM



AIR COOLED CHILLERS

S Series, Standard Model

Technical Specifications

Model Number	Cooling Only Model	CKAW-340A2C-SM	CKAW-410A2C-SM	CKAW-480A2C-SM	CKAW-550A2C-SM
	Heat Pump Model	CKAW-340A2R-SM	CKAW-410A2R-SM	CKAW-480A2R-SM	CKAW-550A2R-SM
Cooling Capacity	kW	340	410	480	550
Cooling Power Input	kW	104	125.8	146.5	168
EER	W/W	3.27	3.26	3.28	3.27
Heating Capacity	kW	365	440	515	590
Heating Power Input	kW	105	127.8	149.6	172
COP	W/W	3.45	3.44	3.11	3.43
Power Supply Format	-	380V/3N ~ 50Hz			
Compressor Type	-	Scroll Type Compressor			
Compressor Quantity	Pcs	5	6	7	8
Refrigerant Type	-	R410A			
Air Side Heat Exchange Type	-	Aluminum Copper Heat Exchanger			
Fan Motor Quantity	Pcs	5	6	7	8
Water Volume	m³/h	58.5	70.5	82.6	94.6
Water Pressure Drop	kPa	67	69	72	75
Max Water Pressure Durability	Mpa	1			
Connection Method	-	Flanged Connection			
Water Connection Pipe Size	mm	DN125	DN125	DN150	DN150
Throttling Device Type	-	High Precision Electrical Expansion Valve			
Outline Dimensions	Width, mm	3280	3280	4370	4370
	Depth, mm	2300	2300	2300	2300
	Height, mm	2450	2450	2450	2450
Transportation Weight	kg	3000	3250	4000	4250
Operation Weight	kg	3150	3415	4200	4470
Noise Level	dB(A)	82	83	84	85

Remarks:

1. Rated cooling capacity test conditions: water flow rate 0.172m³/(h·kW), outlet water temperature 7°C, outdoor dry-bulb temperature 35°C;
2. Rated heating capacity test conditions: water flow rate 0.172m³/(h·kW), outlet water temperature 45°C, outdoor dry-bulb/wet-bulb temperature 7°C/6°C;
3. The above parameters are for a single unit and can be used individually or in combination. The number of units in combination can be 1 to 8. Specifications are subject to change without notice due to improvements.

S Series, With Built-in Hydraulic Module

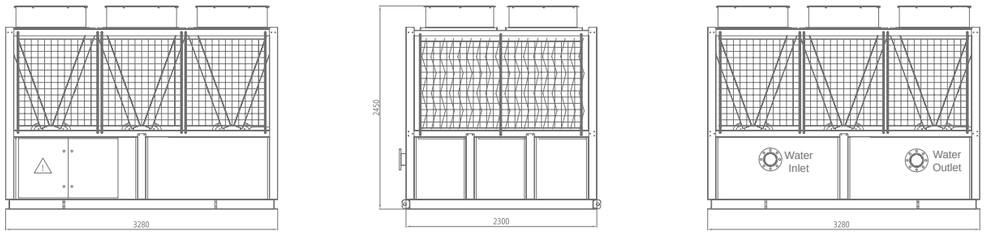
Technical Specifications

Model Number	Cooling Only Model	CKAW-340A2C-SHM	CKAW-410A2C-SHM	CKAW-480A2C-SHM	CKAW-550A2C-SHM
	Heat Pump Model	CKAW-340A2R-SHM	CKAW-410A2R-SHM	CKAW-480A2R-SHM	CKAW-550A2R-SHM
Cooling Capacity	kW	340	410	480	550
Cooling Power Input	kW	104	125.8	146.5	168
EER	W/W	3.27	3.26	3.28	3.27
Heating Capacity	kW	365	440	515	590
Heating Power Input	kW	105	127.8	149.6	172
COP	W/W	3.45	3.44	3.11	3.43
Power Supply Format	-	380V/3N ~ 50Hz			
Compressor Type	-	Scroll Type Compressor			
Compressor Quantity	Pcs	5	6	7	8
Refrigerant Type	-	R410A			
Air Side Heat Exchange Type	-	Aluminum Copper Heat Exchanger			
Fan Motor Quantity	Pcs	5	6	7	8
Water Volume	m³/h	58.5	70.5	82.6	94.6
Water Pressure Drop	kPa	67	69	72	75
Max Water Pressure Durability	Mpa	1			
Connection Method	-	Flanged Connection			
Water Connection Pipe Size	mm	DN125	DN125	DN150	DN150
Throttling Device Type	-	High Precision Electrical Expansion Valve			
Outline Dimensions	Width, mm	3280	3280	4370	4370
	Depth, mm	2300	2300	2300	2300
	Height, mm	2450	2450	2450	2450
Transportation Weight	kg	3000	3250	4000	4250
Operation Weight	kg	3150	3415	4200	4470
Noise Level	dB(A)	82	83	84	85
Hydraulic Module	Water Pump Qty	1	1	1	1
	Water Pump Power Input	11	11	11	15
	Unit External Pump Head Lift	20	25	21	26

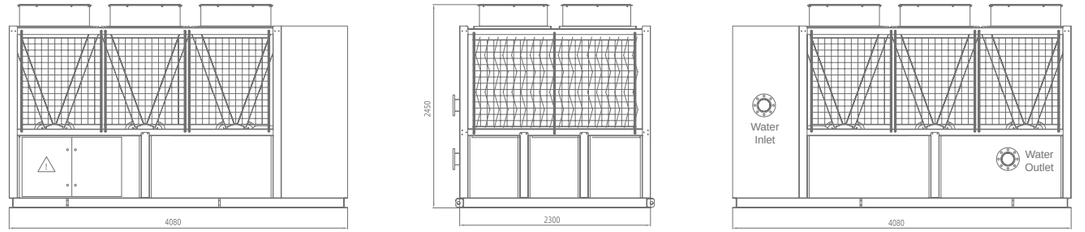
Remarks:

1. Rated cooling capacity test conditions: water flow rate 0.172m³/(h·kW), outlet water temperature 7°C, outdoor dry-bulb temperature 35°C;
2. Rated heating capacity test conditions: water flow rate 0.172m³/(h·kW), outlet water temperature 45°C, outdoor dry-bulb/wet-bulb temperature 7°C/6°C;
3. The above parameters are for a single unit and can be used individually or in combination. The number of units in combination can be 1 to 8. Specifications are subject to change without notice due to improvements.

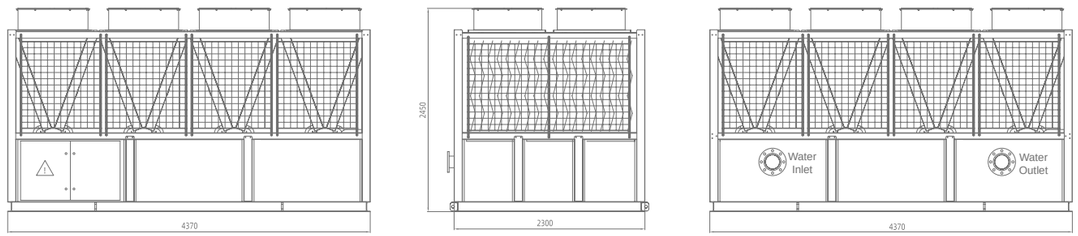
340/410kW Outline Dimension(Standard Model)



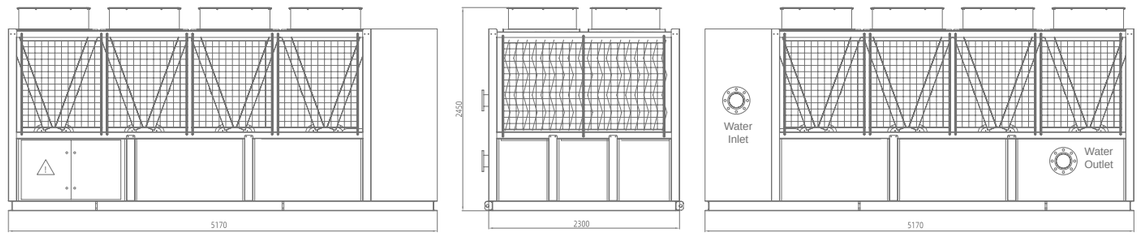
340/410kW Outline Dimension(With Hydraulic Module)

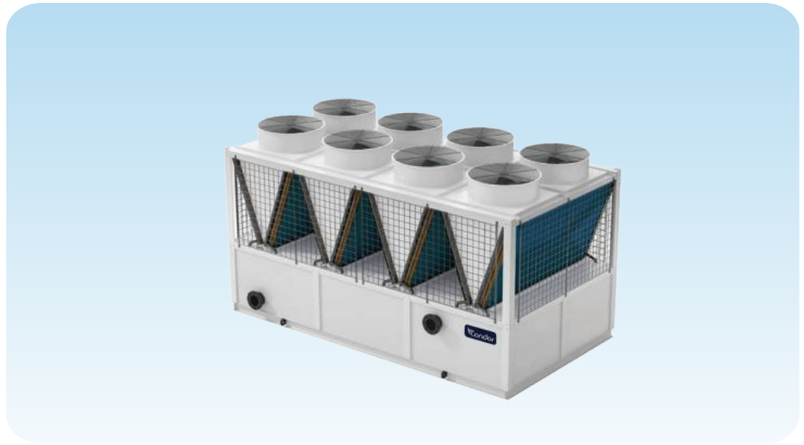


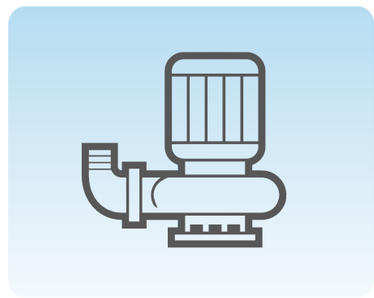
480/550kW Outline Dimension(Standard Model)

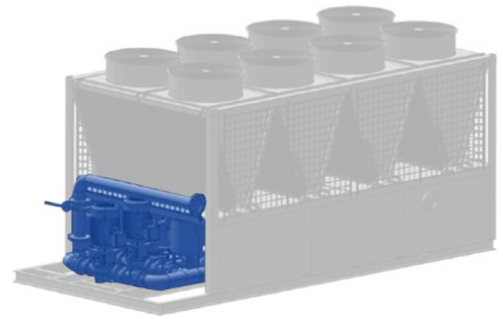


480/550kW Outline Dimension(With Hydraulic Module)









Air Screw Chillers (Fix Speed, Heat Pump)

Appearance

LMP Series(50Hz)

R134A

90RT ——— 449RT

Golden fin condenser | Inner groove copper | Modular structure | Comprehensive protection | Self-diagnosis | Easier maintainability | Memory function | Easier maintainability | 24 hour timer

Features

Dual screw semi-hermetic compressor

●Compact structure, the motor is cooled by the suction refrigerant with stable and high efficiency operation.
●Built-in discharge check valve prevents the back flow of refrigerant when the compressor stop operation.
●Compressor integrated with built-in oil separation screen and oil heater, and with efficient oil return through differential pressure mechanism, ensuring reliable system operation.
●Stepless adjustment of the slide valve ensures precise matching of the compressor's output capacity and load demand.
●High-precision SKF bearings for higher transmission efficiency and improved compressor life.
●Class F insulation motor of three-phase asynchronous power supply.
●Single compressor system capacity can be steplessly adjusted at 50%-100% load, and dual-compressor system capacity can be steplessly adjusted at 25%-100% load.

High efficiency heat exchanger

●Adopting flooded evaporator with built-in refrigerant equalization and liquid baffle device to enhance system reliability, with evaporation temperature higher than 5.5°C.
●Evaporator with triple groove end tube support design, water side working pressure is of 1.0MPA as standard, 1.6MPa or 2.0MPA is optional.
● Factory insulated evaporator with 30mm wall thickness closed cell insulation material.
●Evaporator and condenser with flanged connection as standard, while the victaulic connection as optional.
●Optional marine water box for evaporator.
●Condenser is designed with V-shaped arrangement, the optimized angle provides more uniform airflow distribution, corrugated slot aluminum finned copper tube, enabling its higher heat transfer efficiency.
●Anti-corrosive golden fins for the condenser which can withstand 2000 hours neutral salt spray test.

Economizer

The flasher economizer is adopted for increasing the cooling capacity by 10% and improving the cooling efficiency at the same time.

High-accuracy electronic expansion valve (EXV) control

3810 pulses EXV which combines coarse and fine adjustment for precisely adjusting flow of refrigerant to maintain the correct superheat, thus to improve heat exchanging efficiency under deviation and especially part-load working condition.

Intelligent and reliable oil lubrication system

●In addition to the built-in oil separation screen of the compressor, the unit is also equipped with an external vertical oil separator to ensure the efficiency of oil separation.
●Vapor injection oil return will be automatically initiated to ensure the oil return from the external oil separator when needed, to ensure sufficient oil lubrication for critical components inside the compressor.

Modular design

Different models with different capacities (modules) can be seamlessly integrated into one system by connecting the shell and tube heat exchanger, to expand the cooling capacity. The modular design facilitates lifting and transportation, and reduce the installation space as well. Each module can be set as the master unit, and when one fails, the other remains operational.

Control panel

7 inch key screen or 10 inch touch screen be selected and the display screen provides Chinese and English interface switching function to meet different needs, the display parameters are as follows:

Chilled water inlet and outlet temperature	Suction and exhaust temperature
Evaporation pressure	Condensing pressure
Compressor start times	Cumulative compressor running time
Contactor status	Solenoid valve status
Water temperature setting value	Etc.

Multiple protection functions

The unit has several protection functions, such as for high exhaust temperature protection, safety valve protection, motor winding overheating protection, low pressure protection, high pressure protection, anti-freeze protection, on/off protection of water flow, lack of reverse phase, sensor failure protection and fan overcurrent protection to ensure stable operation under various conditions and to avoid damage caused.

Microprocessor based control system

●Adopt the self-developed and manufactured microprocessor based control system, enabling a powerful and precise control with prompt reaction.
●Base on actual requirements, the chilled water entering or leaving temperature can be selected as setting target.
●Standard interlock interface for chilled water pump and cooling water pump.
●Multiple timer setting and power-off memory restart function.
●Password protection function, access passwords of different authority levels can be set for safe operation.

Other optional configurations

●Star-delta start as standard, and solid-state soft start as optional
●Metal vibration isolator as standard, spring vibration isolator as optional
●The IP rating of electric control cabinet is IPX4 as standard, IP55 is optional
●External static pressure options of fan can be 80Pa, 100Pa, 300Pa
●The heat pump unit can be equipped with -20°C heating option
●Compressor sound enclosure is optional
●Built-in hydraulic module is optional

Nominal Conditions

Item	Water side(water temperature)				Air side(outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	EWT (°C)	LWT (°C)	LWT (°C)	Difference between EWT & LWT (°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	15~52
Heating	40	45	5~15	2.5~8	7	6	-15~24

LWT: Leaving water temperature
EWT: Entering water temperature

Technical Specifications

Model	Cooling only		LMPA30JD4E/Nb-M	LMPB30JD3E/Nb-M	LMPA40JE2E/Nb-M	LMPB40JE1E/Nb-M	LMPA50LE8E/Nb-M	LMPB50LE7E/Nb-M
Capacity	Cooling	kW	315	340	400	445	505	550
		TR	89.6	96.7	113.7	126.5	143.6	156.4
	Heating	kW	320	335	410	430	520	545
		TR	91.0	95.3	116.6	122.3	147.9	155.0
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
COP_C		W/W	3.21	3.21	3.23	3.22	3.22	3.25
COP_H		W/W	3.23	3.22	3.25	3.21	3.25	3.22
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	98	106	124	138	157	169
	Heating	kW	99	104	126	134	160	169
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	1	1	1	1	1	1
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m^3/h	54.2	58.5	68.8	76.5	86.9	94.6
		GPM	239	258	303	337	383	417
	Pressure drop	kPa	≤35	≤35	≤45	≤45	≤45	≤45
		ft.WG	≤11.5	≤11.5	≤14.8	≤14.8	≤14.8	≤14.8
	Connection pipe	-	DN100	DN100	DN125	DN125	DN125	DN125
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m^3/h	19500×6	21500×6	19500×8	21500×8	19500×10	21500×10
		CFM	11477×6	12654×6	11477×8	12654×8	11477×10	12654×10
	Total fan motor power	kW	1.5×6	1.8×6	1.5×8	1.8×8	1.5×10	1.8×10
Dimension (W×D×H)	Outline	mm	3670×2250×2550	3670×2250×2550	4890×2250×2550	4890×2250×2550	6110×2250×2550	6110×2250×2550
	Package	mm	3820×2330×2550	3820×2330×2550	5040×2330×2550	5040×2330×2550	6260×2330×2550	6260×2330×2550
Net/Gross/Operting Weight		kg	4570/4610/4661	4600/4640/4692	5435/5475/5544	5500/5540/5610	6450/6495/6584	6590/6630/6722

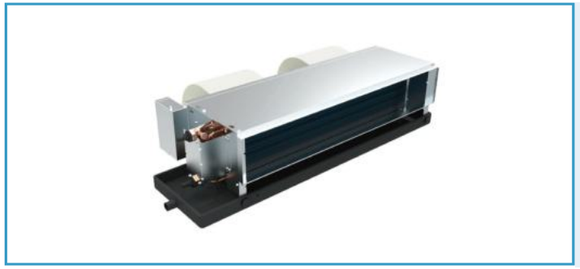
Model	Cooling only		LMPA33LF6E/Nb-M	LMPB33LF5E/Nb-M	LMPB43LG4E/Nb-M	LMPB43LG3E/Nb-M	LMPA44LF2E/Nb-M	LMPB44LF1E/Nb-M
Capacity	Cooling	kW	640	690	730	790	825	900
		TR	182.0	196.2	207.6	224.6	234.6	255.9
	Heating	kW	645	685	755	785	815	890
		TR	183.4	194.8	214.7	223.2	231.8	253.1
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
COP_C		W/W	3.20	3.21	3.24	3.22	3.24	3.23
COP_H		W/W	3.26	3.25	3.25	3.23	3.26	3.22
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	200	215	225	245	255	279
	Heating	kW	198	211	232	243	250	276
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	2	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m^3/h	110.1	118.7	125.6	135.9	141.9	154.8
		GPM	485	523	554	599	626	683
	Pressure drop	kPa	≤55	≤55	≤55	≤55	≤65	≤60
		ft.WG	≤18.0	≤18.0	≤18.0	≤18.0	≤21.3	≤19.7
	Connection pipe	-	DN150	DN150	DN150	DN150	DN150	DN150
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m^3/h	19500×12	21500×12	19500×14	21500×14	19500×16	21500×16
		CFM	11477×12	12654×12	11477×14	12654×14	11477×16	12654×16
	Total fan motor power	kW	1.5×12	1.8×12	1.5×14	1.8×14	1.5×16	1.8×16
Dimension (W×D×H)	Outline	mm	7340×2250×2550	7340×2250×2550	8560×2250×2550	8560×2250×2550	9780×2250×2550	11000×2250×2550
	Package	mm	7490×2330×2550	7490×2330×2550	8710×2330×2550	8710×2330×2550	9930×2330×2550	11150×2330×2550
Net/Gross/Operting Weight		kg	8550/8590/8721	8410/8450/8578	9900/9940/10098	10075/10115/10277	10910/10950/11128	11110/11150/11332

Model	Cooling only		LMPB54NG2E/Nb-M	LMPB55NH1E/Nb-M	LMPB33LF550LE7E/Nb-M	LMPB33LF533LF5E/Nb-M	LMPB33LF543LG3E/Nb-M	LMPB43LG343LG3E/Nb-M
Capacity	Cooling	kW	1000	1120	1240	1380	1480	1580
		TR	284.4	318.5	352.6	392.4	420.8	449.3
	Heating	kW	980	1075	1230	1370	1470	1570
		TR	278.7	305.7	349.8	389.6	418.0	446.4
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	8.3%,16.7%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%
COP		W/W	3.25	3.24	3.23	3.21	3.22	3.22
COP		W/W	3.23	3.22	3.24	3.25	3.24	3.23
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	308	346	384	430	460	490
	Heating	kW	303	334	380	422	454	486
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	2	2	3	4	4	4
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m^3/h	172.0	192.6	213.3	237.4	254.6	271.8
		GPM	758	849	940	1047	1122	1198
	Pressure drop	kPa	≤70	≤55	≤55	≤60	≤60	≤60
		ft.WG	≤23.0	≤18.0	≤18.0	≤19.7	≤19.7	≤19.7
	Connection pipe	-	DN150	DN150+DN125	DN150+DN125	2×DN150	2×DN150	2×DN150
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m^3/h	21500×18	21500×20	21500×22	21500×24	21500×26	21500×28
		CFM	12654×18	12654×20	12654×22	12654×24	12654×26	12654×28
	Total fan motor power	kW	1.8×18	1.5×20	1.5×22	1.5×24	1.5×26	1.5×28
Dimension (W×D×H)	Outline	mm	11000×2250×2550	12230×2250×2550	13450×2250×2550	14670×2250×2550	15890×2250×2550	17120×2250×2550
	Package	mm	11150×2330×2550	12380×2330×2550	13600×2330×2550	14820×2330×2550	16040×2330×2550	17270×2330×2550
Net/Gross/Operting Weight		kg	12380/12420/12628	13160/13200/13423	15000/15040/15300	16820/16860/17156	18485/18525/18855	20150/20190/20553

Note: LMPB33LF550LE7E/Nb~LMPB43LG343LG3E/Nb can be splitted into two parts and transported separately.

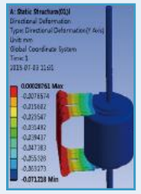
Concealed Ceiling Type (Duct Type) FCU

Appearance

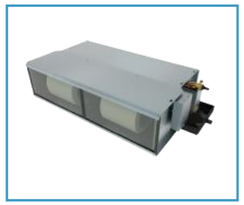


Features

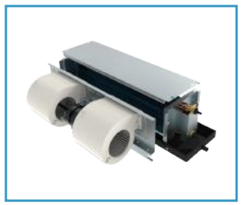
- Anti-corrosion Plastic Fan:
  - Lightweight, delivering higher air volume with the same motor.
  - Consistent design of the vane and volute casing ensures quiet operation.
  - CFD-optimized airflow passage and vane angle for improved efficiency. Divided volute casing allows easy maintenance.
- Quiet and Comfortable:
  - Tangential arc + straight line + helix design for uniform airflow, reducing noise and improving comfort.
- High-quality and Reliable:
  - Comprehensive motor testing (harmonic, sweep, winding temperature rise) ensures electrical safety.
  - Optimized motor structure enhances performance in drop, stacking, and vibration tests, ensuring reliability.
- Easy Installation
  - Fan mounting panel: its special design can meet bottom air return or rear air return.
  - Installation switchover: the left-hand or right-hand installation can be switched over on site quickly.
  - Specially-designed electric box structure: for fan coil units with AC motor, the motor is separated with the capacitor, which can facilitate after-sales replacement and maintenance.



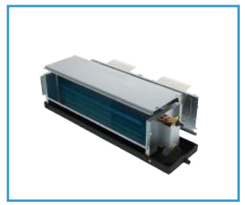
Bottom air return



Rear air return



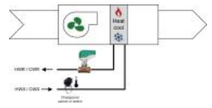
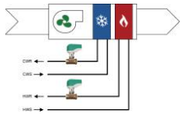
Left-hand installation (2-pipe)



Right-hand installation (2-pipe)

- Flexible Structure:
  - The air return plenum can be integrated or separated from the unit.
  - Nylon or aluminum filters (G2/G4) and metallic fan options available.
- Condensate Tray:
  - Galvanized steel as standard, stainless steel optional.
  - Extendable by 300mm or 500mm based on application needs. Consult us for model selection.
- The two-row series uses a small enthalpy difference design, ideal for applications requiring high comfort and precise regulation.
- The four-row series features a larger enthalpy difference design, providing enhanced dehumidification.
- The four-pipe models (three rows for cooling, one row for heating) are designed for four-pipe air conditioning systems, offering both cooling and heating to meet diverse needs.

Series Layout

Connection Pipes	2 Pipes 		4 Pipes 	Notes
ESP	3 Rows	4 Rows	3+1 Rows	
12Pa	FP-__WAS/G-K			
30Pa	FP-__WAHS/G-K FP-__WAS-R		FP-_WAHT/BHL-K	
50Pa	FPE-__WAUS/G(T)-K	FPE-__WAUF/G(T)-K		DC fan motor
130Pa	FP-___B/U-K			Ultra high airflow and ESP

Technical Specifications

G Series Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 12Pa)

Model			FP-34WAS/G-K	FP-51WAS/G-K	FP-68WAS/G-K	FP-85WAS/G-K	FP-102WAS/G-K	FP-136WAS/G-K	FP-170WAS/G-K	FP-204WAS/G-K
Air flow volume(H/M/L)		m^3/h	340/248/173	510/394/263	680/495/330	850/638/425	1020/788/525	1360/1095/730	1700/1275/850	2040/1575/1050
		CFM	200/146/102	300/232/155	400/291/194	500/375/250	600/464/309	800/644/430	1000/750/500	1201/927/618
ESP		Pa	12	12	12	12	12	12	12	12
Capacity	Cooling/Heating	kW	2.25/3.60	3.30/5.30	4.30/6.93	5.00/8.05	6.30/10.10	8.20/13.20	9.80/15.80	11.25/18.6
Power system	Power supply	V/Ph/Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz
	Input	kW	0.035	0.052	0.062	0.075	0.096	0.134	0.148	0.189
Water system	Cooling water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Heating water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Cooling pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
	Heating pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
Sound pressure level		dB(A)	37	39	41	43	45	46	46	50
Dimension (W×D×H)	Outline	mm	680×490×235	800×460×235	900×490×235	1000×490×235	1080×490×235	1380×490×235	1520×490×235	1620×490×235
	Package	mm	788×258×570	908×258×570	1008×258×570	1108×258×570	1188×258×570	1488×258×570	1623×258×570	1728×258×570
Net weight/Gross weight		kg	11.6/14.6	13.4/16.9	14.7/18.4	16.0/19.9	17.4/21.4	24.0/29.0	26.6/32.2	28.5/34.0
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

FAN COIL UNITS (FCU)

G Series Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 12Pa)

Model			FP-34WAS/ GHL-K	FP-51WAS/ GHL-K	FP-68WAS/ GHL-K	FP-85WAS/ GHL-K	FP-102WAS/ GHL-K	FP-136WAS/ GHL-K	FP-170WAS/ GHL-K	FP-204WAS/ GHL-K
Air flow volume(H/M/L)		m^3/h	340/248/173	510/394/263	680/495/330	850/638/425	1020/788/525	1360/1095/730	1700/1275/850	2040/1575/1050
		CFM	200/146/102	300/232/155	400/291/194	500/375/250	600/464/309	800/644/430	1000/750/500	1201/927/618
ESP		Pa	12	12	12	12	12	12	12	12
Capacity	Cooling/Heating	kW	2.25/3.60	3.30/5.30	4.30/6.93	5.00/8.05	6.30/10.10	8.20/13.20	9.80/15.80	11.00/18.00
Power system	Power supply	V/Ph/ Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.035	0.052	0.062	0.075	0.096	0.134	0.148	0.189
Water system	Cooling water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Heating water flow volume	L/s	0.07	0.11	0.13	0.16	0.20	0.30	0.38	0.42
		GPM	1.08	1.68	2.04	2.52	3.24	4.80	6.00	6.60
	Cooling pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
	Heating pressure drop	kPa	22.00	31.00	31.00	42.00	47.00	47.00	38.00	41.00
		Ft.WG	7.22	10.17	10.17	13.78	15.42	15.42	12.46	13.45
Sound pressure level		dB(A)	37	39	41	43	45	46	46	50
Dimension (W×D×H)	Outline	mm	680×520×235	800×520×235	900×520×235	1000×520×235	1080×520×235	1380×520×235	1520×520×235	1620×520×235
	Package	mm	773×603×325	893×603×325	993×603×325	1093×603×325	1173×603×325	1473×603×325	1608×603×325	1713×603×325
Net weight/Gross weight		kg	14.9/19.6	17.4/22.3	19.3/24.4	21.3/26.7	22.7/28.3	30.9/36.9	34.5/42.0	38.0/44.5
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4
Loading quantity	40'GP/40'HQ	Set	324/432	273/364	249/332	225/300	210/280	168/224	150/200	138/184

G Series Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 30Pa)

Model			FP-34WAHS/ G-K	FP-51WAHS/ G-K	FP-68WAHS/ G-K	FP-85WAHS/ G-K	FP-102WAHS/ G-K	FP-136WAHS/ G-K	FP-170WAHS/ G-K	FP-204WAHS/ G-K
Air flow volume(H/M/L)		m^3/h	340/248/173	510/394/263	680/495/330	850/638/425	1020/788/525	1360/1095/730	1700/1275/850	2040/1575/1050
		CFM	200/146/102	300/232/155	400/291/194	500/375/250	600/464/309	800/644/430	1000/750/500	1201/927/618
ESP		Pa	30	30	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	2.25/3.60	3.30/5.30	4.30/6.93	5.00/8.05	6.30/10.10	8.20/13.20	9.80/15.80	11.25/18.60
Power system	Power supply	V/Ph/ Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz
	Input	kW	0.042	0.053	0.072	0.082	0.104	0.156	0.174	0.212
Water system	Cooling water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Heating water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Cooling pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
	Heating pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
Sound pressure level		dB(A)	40	42	44	46	47	48	48	52
Dimension (W×D×H)	Outline	mm	680×490×235	800×460×235	900×490×235	1000×490×235	1080×490×235	1380×490×235	1520×490×235	1620×490×235
	Package	mm	788×258×570	908×258×570	1008×258×570	1108×258×570	1188×258×570	1488×258×570	1623×258×570	1728×258×570
Net weight/Gross weight		kg	11.6/14.6	13.4/16.9	14.7/18.4	16.0/19.9	17.4/21.4	24.0/29.0	26.6/32.2	28.5/34.0
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

G Series Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 30Pa)

Model			FP-34WAHS/ GHL-K	FP-51WAHS/ GHL-K	FP-68WAHS/ GHL-K	FP-85WAHS/ GHL-K	FP-102WAHS/ GHL-K	FP-136WAHS/ GHL-K	FP-170WAHS/ GHL-K	FP-204WAHS/ GHL-K
Air flow volume(H/M/L)		m^3/h	340/248/173	510/394/263	680/495/330	850/638/425	1020/788/525	1360/1095/730	1700/1275/850	2040/1575/1050
		CFM	200/146/102	300/232/155	400/291/194	500/375/250	600/464/309	800/644/430	1000/750/500	1201/927/618
ESP		Pa	30	30	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	2.25/3.60	2.25/3.60	4.30/6.93	5.00/8.05	6.30/10.10	8.20/13.20	9.80/15.80	11.00/18.00
Power system	Power supply	V/Ph/ Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50H	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.042	0.053	0.072	0.082	0.104	0.156	0.174	0.212
Water system	Cooling water flow volume	L/s	0.09	0.14	0.17	0.21	0.27	0.4	0.5	0.55
		GPM	1.43	2.22	2.70	3.33	4.29	6.35	7.94	8.73
	Heating water flow volume	L/s	0.07	0.11	0.13	0.16	0.20	0.30	0.38	0.42
		GPM	1.08	1.68	2.04	2.52	3.24	4.80	6.00	6.60
	Cooling pressure drop	kPa	20	21	22	30	35	40	33	40
		Ft.WG	6.56	6.89	7.22	9.84	11.48	13.12	10.82	13.12
	Heating pressure drop	kPa	31.00	30.00	31.00	43.00	49.00	47.00	40.00	42.00
		Ft.WG	10.17	9.84	10.17	14.10	16.07	15.42	13.12	13.78
Sound pressure level		dB(A)	40	42	44	46	47	48	48	52
Dimension (W×D×H)	Outline	mm	680×520×235	800×520×235	900×520×235	1000×520×235	1080×520×235	1380×520×235	1520×520×235	1620×520×235
	Package	mm	773×603×325	893×603×325	993×603×325	1093×603×325	1173×603×325	1473×603×325	1608×603×325	1713×603×325
Net weight/Gross weight		kg	14.9/19.6	17.4/22.3	19.3/24.4	21.3/26.7	22.7/28.3	30.9/36.9	34.5/42.0	38.0/44.5
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

G Series Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 50Pa)

EC

Model			FPE-51WAUS/ G(T)-K	FPE-68WAUS/ G(T)-K	FPE-85WAUS/ G(T)-K	FPE-102WAUS/ G(T)-K	FPE-136WAUS/ G(T)-K	FPE-170WAUS/ G(T)-K	FPE-204WAUS/ G(T)-K	FPE-238WAUS/ G(T)-K
Air flow volume(H/M/L)		m^3/h	510/394/264	680/495/340	850/638/425	1020/788/525	1360/1095/730	1700/1275/850	2040/1575/1050	2380/1850/1250
		CFM	300/231/155	400/291/170	500/375/250	600/464/309	800/644/429	1000/750/500	1200/926/618	1400/1088/735
ESP		Pa	50	50	50	50	50	50	50	50
Capacity	Cooling/Heating	kW	3.15/5.30	4.20/6.93	5.00/8.05	6.30/10.10	8.20/13.20	9.80/15.80	11.25/18.60	13.20/22.00
Power system	Power supply	V/Ph/ Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz	220-240V ~50Hz
	Input	kW	0.04	0.049	0.061	0.08	0.101	0.125	0.173	0.208
Water system	Cooling water flow volume	L/s	0.16	0.21	0.24	0.28	0.39	0.47	0.54	0.64
		GPM	2.54	3.33	3.81	4.44	6.19	7.46	8.57	10.16
	Heating water flow volume	L/s	0.16	0.21	0.24	0.28	0.39	0.47	0.54	0.64
		GPM	2.54	3.33	3.81	4.44	6.19	7.46	8.57	10.16
	Cooling pressure drop	kPa	21	22	30	35	40	33	40	50
		Ft.WG	6.89	7.22	9.84	11.48	13.12	10.82	13.12	16.4
	Heating pressure drop	kPa	21	22	30	35	40	33	40	50
		Ft.WG	6.89	7.22	9.84	11.48	13.12	10.82	13.12	16.4
Sound pressure level		dB(A)	42	43	44	46	47	48	52	53
Dimension (W×D×H)	Outline	mm	800×460×235	900×490×235	1000×490×235	1190×490×235	1520×490×235	1620×490×235	1770×490×235	1950×560×285
	Package	mm	905×255×555	1005×255×555	1105×255×555	1295×255×555	1625×255×555	1725×255×555	1875×255×555	1970×350×640
Net weight/Gross weight		kg	14.2/16.9	16.2/19.4	17.4/21.0	18.8/22.7	27.6/33.6	30.3/35.8	32.8/38.3	40.0/47.0
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

Higher Capacity Concealed Ceiling FCU 50Hz (3 rows(2 pipes), ESP: 30Pa)

Model			FP-238WAS-R	FP-272WAS-R	FP-306WAS-R	FP-340WAS-R
Air flow volume(H/M/L)		m^3/h	2380/1650/1240	2720/2100/1470	3060/1710/1140	3400/2380/1380
		CFM	1400/971/729	1600/1235/868	1800/1006/674	2000/1400/812
ESP		Pa	30	30	30	30
Capacity	Cooling/Heating	kW	12.4/19.5	13.5/21.3	16.0/24.8	17.0/26.1
Power system	Power supply	V/Ph/Hz	220V-240V ~ 50Hz			
	Input	kW	0.38	0.475	0.535	0.64
Water system	Cooling water flow volume	L/s	0.57	0.64	0.74	0.79
		GPM	9.05	10.16	11.75	12.54
	Heating water flow volume	L/s	0.57	0.64	0.74	0.79
		GPM	9.05	10.16	11.75	12.54
	Cooling pressure drop	kPa	21.9	27.9	37.5	41.2
		Ft.WG	7.3	9.3	12.5	13.7
	Heating pressure drop	kPa	21.9	27.9	37.5	41.2
		Ft.WG	7.3	9.3	12.5	13.7
Sound pressure level		dB(A)	56	59	62	63
Dimension (W×D×H)	Outline	mm	1671×595×354	1671×595×354	1921×595×354	1921×595×354
	Package	mm	1750×380×650	1750×380×650	1950×380×650	1950×380×650
Net weight/Gross weight		kg	48/55	48/55	52/60	52/60
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc1			
	Condensed water drain(outer thread)	Inch	$R_2$1			
Loading quantity	40'GP/40'HQ	Set	140/166	140/166	130/153	130/153

G Series Concealed Ceiling FCU 50Hz (4 rows(2 pipes), ESP: 50Pa)

Model			FPE-51WAUF/G(T)-K	FPE-68WAUF/G(T)-K	FPE-85WAUF/G(T)-K	FPE-102WAUF/G(T)-K	FPE-136WAUF/G(T)-K	FPE-170WAUF/G(T)-K	FPE-204WAUF/G(T)-K	FPE-238WAUF/G(T)-K
Air flow volume(H/M/L)		m^3/h	540/470/320	680/520/380	850/750/460	1020/820/520	1360/1100/800	1700/1400/900	2040/1700/1100	2380/2050/1150
		CFM	318/276/188	400/306/224	500/441/271	600/482/306	800/647/471	1000/824/529	1200/1000/647	1400/1206/676
ESP		Pa	50	50	50	50	50	50	50	50
Capacity	Cooling/Heating	kW	3.35/5.54	4.3/7.05	5.4/8.9	6.35/10.6	9.0/14.5	10.1/16.3	12.5/20.4	15.6/23.5
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.044	0.054	0.065	0.08	0.107	0.133	0.173	0.3
Water system	Cooling water flow volume	L/s	0.14	0.18	0.23	0.27	0.38	0.433	0.53	0.67
		GPM	2.22	2.86	3.65	4.29	6.03	6.87	8.41	10.63
	Heating water flow volume	L/s	0.14	0.18	0.23	0.27	0.38	0.433	0.53	0.67
		GPM	2.22	2.86	3.65	4.29	6.03	6.87	8.41	10.63
	Cooling pressure drop	kPa	12	20	33	23	30	20	41	50
		Ft.WG	3.94	6.56	10.82	7.54	9.84	6.56	13.45	16.40
	Heating pressure drop	kPa	12	20	33	23	30	20	41	50
		Ft.WG	3.94	6.56	10.82	7.54	9.84	6.56	13.45	16.40
Sound pressure level		dB(A)	43.5	44	44.5	46.5	45	48	50	50.5
Dimension (W×D×H)	Outline	mm	800×460×235	900×490×235	1000×490×235	1190×490×235	1520×490×235	1620×490×235	1770×490×235	1950×560×285
	Package	mm	905×255×555	1005×255×555	1105×255×555	1295×255×555	1625×255×555	1725×255×555	1875×255×555	1970×350×640
Net weight/Gross weight		kg	18/22	20.5/24	22/27	24.5/28	35/42	38.5/43	41/46	46.5/54.5
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

Concealed Ceiling FCU 50Hz (3+1 rows(4 pipes), ESP: 30Pa)

Model			FP-34WAHT/BHL-K	FP-51WAHT/BHL-K	FP-68WAHT/BHL-K	FP-85WAHT/BHL-K	FP-102WAHT/BHL-K	FP-136WAHT/BHL-K	FP-170WAHT/BHL-K	FP-204WAHT/BHL-K
Air flow volume(H/M/L)		m^3/h	340/255/170	600/450/300	680/510/340	850/637/425	1020/765/510	1450/1087/725	1800/1350/900	2040/1530/1020
		CFM	200/150/100	353/265/177	401/300/200	501/375/250	601/451/300	854/640/427	1060/795/530	1202/901/601
ESP		Pa	30	30	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	2.30/2.10	3.60/3.35	4.35/4.00	5.40/4.60	6.70/5.35	8.10/7.00	10.35/8.30	11.00/8.95
Power system	Power supply	V/Ph/Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.045	0.066	0.071	0.09	0.113	0.169	0.186	0.216
Water system	Cooling water flow volume	L/s	0.12	0.18	0.22	0.26	0.30	0.40	0.48	0.49
		GPM	1.85	2.80	3.44	4.08	4.80	6.27	7.56	7.71
	Heating water flow volume	L/s	0.08	0.11	0.14	0.15	0.18	0.24	0.27	0.28
		GPM	1.28	1.78	2.15	2.40	2.85	3.74	4.35	4.50
	Cooling pressure drop	kPa	8	15	24	35	56	17	32	31
		Ft.WG	2.62	4.92	7.87	11.48	18.37	5.58	10.50	10.17
	Heating pressure drop	kPa	22.7	41.5	79.7	108.2	153.5	53.6	72.4	80.6
		Ft.WG	7.45	13.61	26.14	35.49	50.35	17.58	23.75	26.44
Sound pressure level		dB(A)	40	42	44	46	47	48	50	52
Dimension (W×D×H)	Outline	mm	881×510×245	1011×510×245	1131×510×245	1211×510×245	1371×510×245	1761×510×245	1921×510×245	1921×510×245
	Package	mm	903×625×278	1033×625×278	1153×625×278	1233×625×278	1390×625×278	1783×625×278	1943×625×278	1943×625×278
Net weight/Gross weight		kg	19/22.5	22.5/27	25/29.5	27/31.5	30.5/35	43.5/48.5	47/53	47/53
Connection pipe diameter	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	Inch	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4	$R_2$3/4

Notes:

1. The data are tested under these testing conditions as below:(Not applicalbe for Eurovent certificated products, parameters of Eurovent certiificated concealed ceiling FCU will be available upon request)

Item		Nominal test condition (temperature)			
		Inlet Air		Water°C	
		DB(°C)	WB(°C)	Inlet(°C)	Outlet(°C)
2 Pipes	Cooling	27	19.5	7	12
	Heating	21	15	60	Based on the water flow volume at the rated cooling capacity
4 Pipes	Cooling	27	19.5	7	12
	Heating	21	15	65	55

2. The airflow volume is tested under the ESP in the table.
3. Sound pressure level is tested according to GB/T 19232-2019.
4. Package dimension is the external dimension of carton box according to actual stacking direction(may differ from that of products installation).
5.Products are with various certifications according to different market requirements, please contact the sale representative for detail.

Concealed Ceiling Type (Duct Type), High Airflow Vol and ESP Series

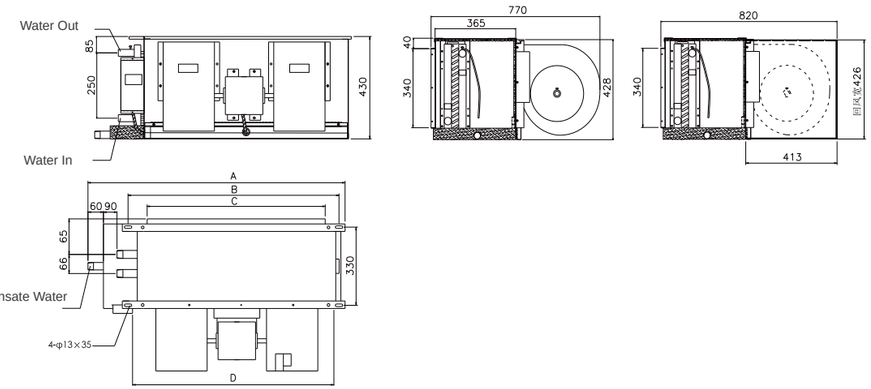
Appearance

Model Number: CTFM		800B	1000B	1200B	1600B	1800B	2000B	3000B
Airflow Vol, m³/h	H	1265	1510	1925	2490	2945	3880	5500
	M	1015	1215	1540	1990	2360	3100	4395
	L	815	970	1230	1595	1890	2485	3520
ESP, Pa	H	130	130	130	130	130	130	130
Cooling capacity, kW	H	8.29	9.87	12.04	15.93	19.11	24.26	34.41
	M	6.64	7.9	9.63	12.75	15.29	19.39	27.51
	L	5.3	6.31	7.7	10.2	12.22	15.53	22.01
Sensible cooling capacity, kW	H	6.11	7.39	8.75	11.87	14.28	17.62	25
	M	4.89	5.91	6.99	9.51	11.42	14.09	19.98
	L	3.92	4.73	5.6	7.61	9.14	11.29	15.99
Heating capacity, kW	H	12.37	15.19	19.6	24.56	28.66	39.47	55.99
	M	9.89	12.51	15.68	19.65	22.93	31.58	44.79
	L	7.91	9.72	12.54	15.73	18.34	25.29	35.84
Power input, W	H	280	370	600	700	750	1200	1800
Nosie, dB(A)	H	62	63	64	63	64.5	65	66
Fan	Type	Forward-curved multi-blade centrifugal double-suction fan						
Fan motor	Type	Single-phase capacitor motor						
Heat exchanger	Type	Aluminum finned copper tube						
	Max operating pressure, Mpa	1.6MPa						
	Water inlet/outlet size	R1(Tapered pipe external thread)					R1 1/2 (Tapered pipe external thread)	
	Water flow, m³/h	1.6	1.88	2.39	3.08	3.65	4.5	6.16
Water resistance, kPa		6	14	25	20	25	35	45
Water tray	Condesate water pipe size	R1 (Tapered pipe external thread)						
Outline dimensions	Width, mm	860	860	960	1110	1260	1560	2010
	Depth, mm	820	820	820	820	820	820	820
	Height, mm	430	430	430	430	430	430	430
Net weight	kg	50	50	56	65	76	94	126

Remarks for High Airflow Vol and ESP Series

1. Cooling capacity test conditions: Supply and return water temperature 7/12°C; Return air conditions: Inlet air dry-bulb temperature 27°C, wet-bulb temperature 19.5°C;
2. Heating capacity test conditions: Water supply temperature 60°C, water flow rate the same as during cooling; Return air conditions: Inlet air dry-bulb temperature 21°C;
3. The air volume in the table is measured when the unit is operating in a dry state with a dry-bulb temperature of 20°C;
4. Water entrainment may occur if the duct static pressure loss is less than 80Pa;
5. The unit is equipped with a bottom return air box as standard unless otherwise specified;
6. The noise level in the table is measured in a semi-anechoic chamber with a background noise level of 11.5dB(A);
7. Specifications are subject to change without notice due to product improvements. Please refer to the unit nameplate for details;
8. Please consult us if you need to select a thermostat.

Dimensions



Modle CTFM	A	B	C	D	Water In/outlet size	Condensate Water
800B	860	683	530	653	R1	R1
1000B	860	683	530	653	R1	R1
1200B	960	783	630	653	R1	R1
1600B	1110	953	800	753	R1	R1
1800B	1260	1083	930	923	R1	R1
2000B	1560	1403	1250	1373	R1 1/2	R1
3000B	2010	1853	1700	1823	R1 1/2	R1

Concealed Ceiling Type (Duct Type) FCU With Healthy Functions

CMCW Series: Sterilization / Haze Removal

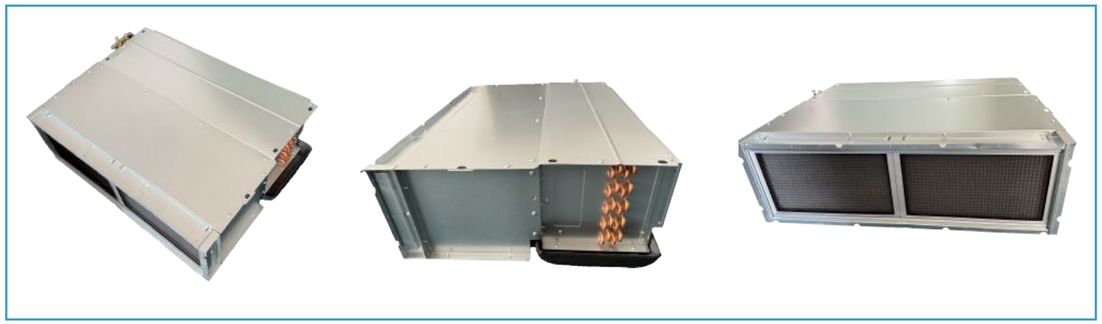
Appearance

Base Unit

Option 1: Sterilization

Option 2: Haze Removal

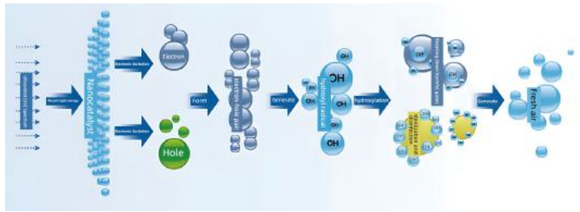
Remark:can only choose one.

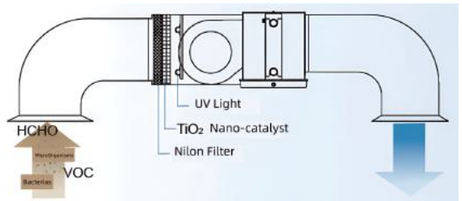


With UV generator and Plenum Box, Fabric filter.

Healthy functions explained

Sterilization Option (TiO2, Photocatalytic Sterilization)





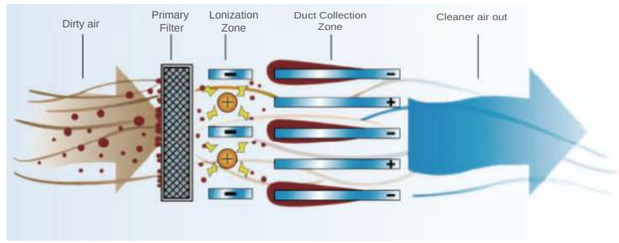
Working Principle

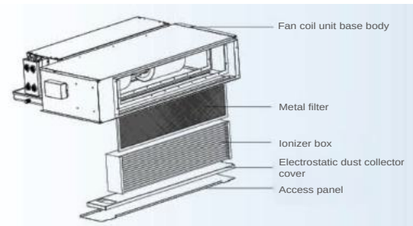
By irradiating with specific wavelengths of light, the nano-photocatalyst is activated, generating electron-hole pairs. This enables the photocatalyst to interact with surrounding H2O and O2 molecules, combining to form hydroxyl radicals (OH). Through these hydroxyl radicals, various harmful components in the air are trapped and their molecular structures are decomposed, inhibiting bacterial growth and viral activity. This achieves the purposes of sterilization, air purification, deodorization, detoxification, and elimination of air pollution.

Our TiO2 photocatalytic sterilization fan coil unit has the following advantages:

- Equipped with multiple high-power UV-A germicidal lamps and metal plate TiO2 filter screens, with a single UV lamp power not less than 8W, ensuring effective purification throughout the entire air conditioning box;
- Nano-grade high-strength titanium dioxide (TiO2) is used as the photocatalytic raw material, and high-temperature film coating technology is adopted to fully utilize the photocatalytic effect;
- The UV lamp of the unit can not only provide a control access point for users to wire and control themselves, but also achieve linkage control with the fan.

Haze removal option (high-efficiency electrostatic dust collection)





Working Principle

Dust and pollutants in the air become ionized when passing through a high-voltage electric field, causing them to change their direction of movement and become trapped. At this point, positively charged ions move towards the cathode plate (negative electrode) under the influence of the electric field force. Based on the principle of opposites attract, the particulate matter is captured and adsorbed onto the collection plate by the energy instantly released by the high-voltage charge, thus achieving the effect of dust removal and sterilization.

Our TiO2 photocatalytic sterilization fan coil unit has the following advantages:

- High-efficiency purification, PM2.5 single-pass purification efficiency ≥ 90%.
- Adopting a direct-discharge ion sheet, Resistance ≤ 10Pa, compared with traditional HEPA, the resistance is lower, it can be repeatedly cleaned, no need to replace it repeatedly, and the maintenance cost is low;
- The unit can provide control access points For users to wire and control by themselves, it can also realize linkage control with the fan.

Remarks for technical specifications

1. Parameter items without AC/DC characteristics specified in the table indicate that the AC/DC unit parameters are consistent for that item.
2. The cooling capacity is tested under the conditions of inlet dry bulb temperature 27°C, wet bulb temperature 19.5°C, inlet water temperature 7°C, and outlet water temperature 12°C.
3. The heating capacity is tested under the conditions of inlet dry bulb temperature 21°C, inlet water temperature 60°C, and outlet water temperature 50°C.
4. The rated air volume is tested under standard air conditions and dry coil conditions (dry bulb temperature 20°C).
5. The sound pressure level noise value is tested in a semi-anechoic chamber with a background noise of 11.5dB(A) (according to GB/T19232-2019).
6. H, M, and L represent high, medium, and low fan speeds, respectively.
7. Static pressure refers to the static pressure at the unit outlet.
8. The unit performance parameters in the table are all tested under 220V~/50Hz power supply.
9. The air volume, total cooling capacity/sensible cooling capacity, and rated heating capacity in the above table are all based on units without return air boxes and filters. For units with rear return air boxes/bottom return air boxes, the corresponding data needs to be multiplied by a correction factor of 0.92~0.95.

Technical Speficiations

CMCW Series: Sterilization / Haze Removal, 4 Pipes (3+1 Rows)

Model Number	Model with Sterilization		CMCW200VH/S	CMCW300VH/S	CMCW400VH/S	CMCW500VH/S	CMCW600VH/S	CMCW700VH/S	CMCW800VH/S	CMCW1000VH/S	CMCW1200VH/S	CMCW1400VH/S
	Model with Haze removal		CMCW200VS/H	CMCW300VS/H	CMCW400VS/H	CMCW500VS/H	CMCW600VS/H	CMCW700VS/H	CMCW800VS/H	CMCW1000VS/H	CMCW1200VS/H	CMCW1400VS/H
Airflow Volume, m³/h (12/30/50Pa ESP)		H	340	510	680	850	1020	1170	1360	1700	2040	2380
		M	279	418	510	660	836	900	1115	1394	1600	1785
		L	170	255	340	425	510	585	680	850	1020	1190
Cooling capacity, W	Full cooling capacity	H	2100	3200	4100	4850	5600	6300	7800	9000	10800	12600
	Sensible cooling capacity	H	1350	2150	2750	3400	3850	4450	5450	6550	7650	9000
Heating capacity, W		H	2000	3000	3600	4450	5100	5600	7000	8000	9500	10000
Power Input kW (AC)	12Pa ESP	H	35	46	59	74	93	110	130	147	183	221
		M	31	40	51	61	79	99	121	134	144	203
		L	23	29	39	46	64	77	98	114	111	159
	30Pa ESP	H	41	56	70	83	105	121	150	169	206	245
		M	36	50	56	72	97	110	133	156	204	230
		L	27	38	46	60	78	89	106	126	161	194
	50Pa ESP	H	48	64	80	97	114	130	169	204	243	291
		M	40	57	73	87	113	116	133	187	224	277
		L	32	46	64	72	95	104	111	157	204	250
Noise dB(A)	12Pa ESP	H	35	36	40.5	42	45	46	44.5	48	49	51
		M	30	30	35.5	35	39.5	41	38.5	43	41	45.5
		L	20.5	20.5	24	23	30.5	27	27.5	36.5	32.5	34
	30Pa ESP	H	35	36	39	41	43.5	45	43.5	46.5	47.5	49.5
		M	M	31	32.5	31	34.5	39	38.5	37.5	41	40.5
		L	23	23	21	25	28.5	29	28.5	33	30	32
	50Pa ESP	H	39	40.5	42.5	43.5	45.5	46	45.5	48	49	50.5
		M	32	36	39	39	38.5	39	39	42	43.5	45
		L	24	26.5	39.5	28	29.5	32	32	34	38.5	38
Water flow vol, m³/h	Cooling mode		0.36	0.55	0.7	0.83	0.96	1.08	1.34	1.54	1.85	2.16
	Heating mode		0.17	0.26	0.31	0.38	0.44	0.48	0.6	0.69	0.81	0.94
Water resistance, kPa	Cooling mode		20	26	22	30	26	32	32	40	32	45
	Heating mode		30	13	20	28	38	18	30	35	25	35
Coil	Coil type		Aluminum finned copper pipes									
	Working pressure		1.6 Mpa									
Fan	Fan type		Forward multi-blade centrifugal fan									
	QTY		1	2	2	2	2	2	3	3	4	4
Fan Motor	Motor type		Single phase motor									
	Quantity		1	1	1	1	1	1	2	2	2	2
	Power supply		220V~/50Hz									
	Protection Class (AC)		IP20									
	Insulation Class		B									
Water inlet/outlet pipe	Connection size		Cooling coil: Rc 3/4; Heating coil: Rc 1/2 (Tapered Pipe Internal Thread)									
Condenstate water pipe	Connection size		Rc 3/4 (Tapered Pipe External Thread)									
Outline Dimension	Width	mm	625	815	865	945	1045	1095	1425	1475	1675	1825
	Depth	mm	465	465	465	465	465	1095	465	465	465	465
	Height	mm	235	235	235	235	235	235	235	235	235	235
Unit Net Weight (AC)		kg	10.2	13	14.2	15.3	16.5	18	24.3	26.4	30.1	35.3

TCR Series: F7 High-Medium Filter / Micro-electrostatic filter module

F7 High-Medium Filter Module

Appearance

F7 Filter

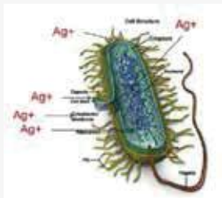
- Our standard fan coil units are equipped with high-efficiency, no-partition, low-pressure loss filters, which effectively filter dust particles and microbial aerosols in the air, meeting the requirements for the once-through efficiency of airborne particulate matter and microorganisms.
- At the same time, high-efficiency filters with antibacterial coating are optional. They not only filter microbial aerosols, but also destroy bacterial cell structures to achieve sterilization.
- The filters are replaced regularly, maintenance is simple and easy to operate.

The high-efficiency filter uses low wind resistance melt-blown PP material. It adopts a folded filter paper structure to increase the filtration area, extend the filter's service life, and reduce the replacement frequency.

The high-efficiency antibacterial filter is coated with silver ions, which have an oxidizing effect and can be used for sterilization and disinfection. It is currently the safest sterilizing agent.

Silver ions can interfere with cell wall synthesis, causing the cell wall to lose its integrity and thus die; silver ions damage the cell membrane, which is an important component of bacterial cell life activities, and bacteria will die after the damage;

Silver ions interfere with nucleic acid synthesis, hindering the replication of genetic information, including the synthesis of DNA and RNA, and the transcription of DNA templates to mRNA, etc.



FAN COIL UNITS (FCU)

Micro-electrostatic filter module

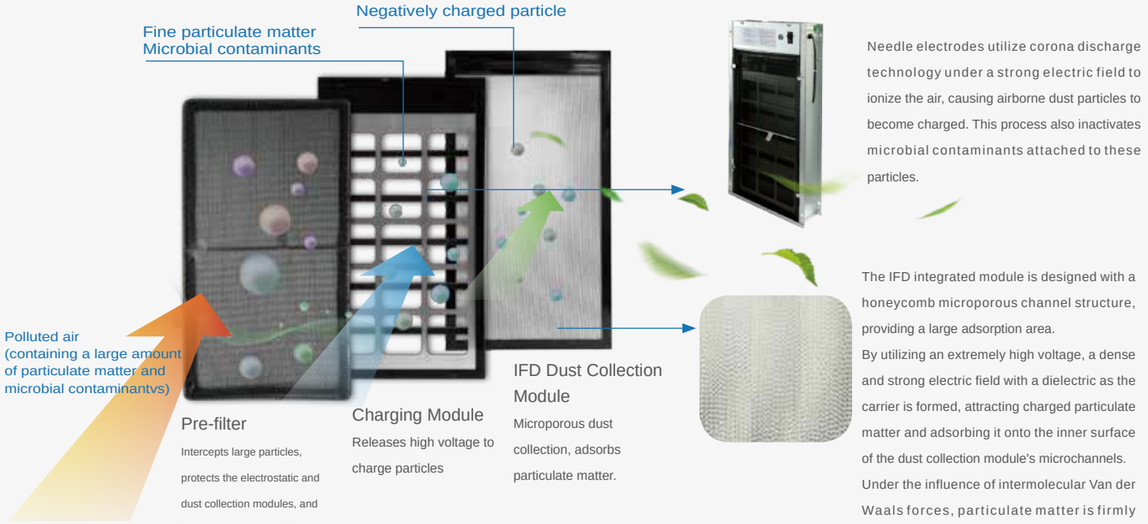
Appearance

IFD Micro-electrostatic
Filter module

- Our standard fan coil units are equipped with IFD micro-electrostatic filtration modules, achieving highly efficient dust removal and sterilization. The power consumption of a single micro-electrostatic module does not exceed 5W, and the air resistance does not exceed 18Pa, minimizing the system's energy consumption.

- The ultra-thin module design reduces the installation space required for the unit.

- The unit is safe to use, with no exposed high-voltage parts and no sparking or abnormal discharge phenomena. The ozone generation is far below the 16mg/m³ requirement of the "GB/T 18883-2002 Indoor Air Quality Standard".



Needle electrodes utilize corona discharge technology under a strong electric field to ionize the air, causing airborne dust particles to become charged. This process also inactivates microbial contaminants attached to these particles.

The IFD integrated module is designed with a honeycomb microporous channel structure, providing a large adsorption area.
By utilizing an extremely high voltage, a dense and strong electric field with a dielectric as the carrier is formed, attracting charged particulate matter and adsorbing it onto the inner surface of the dust collection module's microchannels. Under the influence of intermolecular Van der Waals forces, particulate matter is firmly deposited on the inner surface of the IFD dust collection module, and it will not easily detach even with airflow passing through.

Technical Speficiations

CTCR Base Models

Model CTCR			200J	300J	400J	500J	600J	700J	800J	1000J	1200J	1400J
Airflow Vol m^3/h		H	340	510	680	850	1020	1190	1360	1700	2040	2380
		M	270	380	510	640	780	880	1030	1290	1540	1850
		L	190	280	340	450	560	610	740	890	1040	1255
Cooling Capacity, W		H	2210	3200	4150	5000	5950	6600	8100	9100	11250	13000
		M	1990	2782	3570	4197	5200	5600	6882	8200	9613	11700
		L	1635	2304	2950	3298	4200	4600	5749	6700	7403	7560
Sensible Cooling, W		H	1590	2285	2880	3570	4200	4700	5880	6700	8260	9750
		M	1400	1920	2420	2930	3570	3900	4880	5700	6935	8280
		L	1050	1555	1930	2210	2900	3200	3935	4500	5120	5945
Heating Capacity(60°C water inlet), W		H	3500	5200	6500	7870	9800	10900	13000	14900	18800	22100
Heating Capacity(45°C water inlet), W		H	2210	3200	4150	5000	5950	6600	8100	9100	11250	13000
Power Input, W	12Pa Low ESP	H	30	45	55	72	93	100	128	147	183	221
		M	27	36	43	58	80	97	112	130	165	198
		L	23	30	35	48	68	78	95	110	136	165
	30Pa ESP	H	38	55	65	82	100	120	148	169	206	245
		M	32	45	50	64	80	105	133	160	195	230
		L	27	33	37	53	70	90	128	140	170	195
	50Pa ESP	H	45	64	75	91	114	130	165	200	243	290
		M	36	50	65	86	105	110	150	190	230	270
		L	30	42	55	73	90	96	122	170	200	250
Cooling Energy Efficiency Ratio FCEER	12Pa Low ESP	H	65	64	66	61	55	57	55	53	53	50
	30Pa ESP	H	53	53	57	55	51	48	48	47	48	45
	50Pa ESP	H	45	46	50	50	46	45	44	40	41	39
Heating Energy Efficiency Ratio FCEER (60°C water inlet)	12Pa Low ESP	H	103	104	103	96	90	93	87	87	89	84
	30Pa ESP	H	84	87	89	86	85	80	77	77	80	77
	50Pa ESP	H	72	75	78	78	76	74	70	66	69	67
Heating Energy Efficiency Ratio FCEER (45°C water inlet)	12Pa Low ESP	H	65	64	66	61	55	57	55	53	53	50
	30Pa ESP	H	53	53	57	55	51	48	48	47	48	45
	50Pa ESP	H	45	46	50	50	46	45	44	40	41	39
Noise, dB(A)	12Pa Low ESP	H	35	38	39	41	45	46	46	47	49	51
		M	28.5	30	31	32	37	40	40	41	44	47
		L	20.5	21	22	24	28	31	31	32	34	35
	30Pa ESP	H	36	39	40	43	44	46	46	47	49	50
		M	29	30	32	35	36	40	40	41	45	46
		L	22	21	21	26	27	31	31	32	34	35
	50Pa ESP	H	40	41	43	45	47	48	48	49	51	51
		M	33.5	34	36	36.5	39	42	42	45	46	47
		L	27	26	26	27	30	34	34	37	39	40
Fan	Type		Forward-curved multi-blade centrifugal double-inlet fan									
Motor	Type		Single-phase capacitor operating type									
Heat Exchanger	Structure Type		Aluminum finned copper tube									
	Max. working pressure		1.6									
	Water inlet/outlet pipe size		Rc 3/4 Tapered internal thread									
	Water flow vol.m^3/h		0.42	0.55	0.72	0.87	1.05	1.12	1.39	1.67	1.9	2.23
Water resistance	kPa		25	25	30	30	40	40	40	40	40	50
Water tray	Condensate Water Pipe Size		Rc 3/4 Tapered External thread									
Outline Dimension	Width, mm		695	845	930	995	1085	1235	1530	1530	1795	1795
	Depth, mm		600	600	600	600	600	600	600	600	620	620
	Wight, mm		269	269	269	269	269	269	269	269	289	289
Net weight	With plenum box, kg		12.5	15.5	17.5	19	20	22.5	26	29	36	37.5

Notes:

1. The air volume in the table is measured when the unit is running in a dry state without a return air box and purification filter, at a dry bulb temperature of 20°C.
2. The total cooling capacity in the table is measured when the unit is running without a return air box and purification filter, at an inlet air dry/wet bulb temperature of 27/19.5°C and an inlet/outlet water temperature of 7/12°C.
3. The heating capacity in the table is measured when the unit is running without a return air box and purification filter, at an inlet air dry bulb temperature of 21°C, an inlet water temperature of 60°C or 45°C, and the same water flow rate as in the cooling condition.
4. The noise in the table is measured in a semi-anechoic chamber with a background noise of 11.5dB(A), according to GB/T 19232-2019, when the unit is running in a dry state without a return air box and filter.
5. The left and right piping of the unit can be interchanged on site, but the cooling and heating capacity should be multiplied by a correction factor of 0.9 after the interchange.
6. The unit is designed for bottom return air, and the bottom return air and rear return air cannot be interchanged on site.
7. Specifications are subject to change without notice due to product improvements. Please refer to the unit's nameplate for details.

FAN COIL UNITS (FCU)

Capacity Amendment Factors

Amendment factor when selector F7 High-Medium filter module

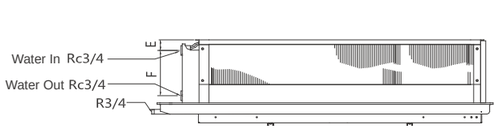
Mode Number		200B/F	300B/F	400B/F	500B/F	600B/F	700B/F	800B/F	1000B/F	1200B/F	1400B/F
Amendment Factor	H	0.92	0.88	0.89	0.89	0.90	0.89	0.91	0.90	0.89	0.88
	M	0.94	0.90	0.91	0.91	0.92	0.91	0.93	0.92	0.91	0.90
	L	0.94	0.90	0.91	0.91	0.92	0.91	0.93	0.92	0.91	0.90

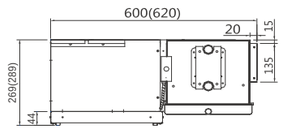
Amendment factor when select Micro-electrostatic filter module

Mode Number		200E	300E	400E	500E	600E	700E	800E	1000E	1200E	1400E
Amendment Factor	H	0.88	0.85	0.87	0.87	0.88	0.87	0.90	0.85	0.83	0.82
	M	0.90	0.88	0.90	0.90	0.91	0.90	0.91	0.88	0.86	0.85
	L	0.90	0.88	0.90	0.90	0.91	0.90	0.91	0.88	0.86	0.85

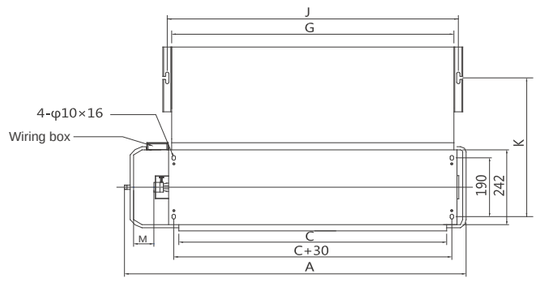
Outline Dimension

Dimension for unit with F7 High-Medium filter module



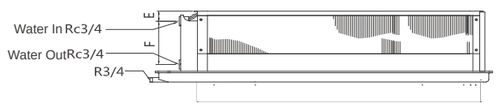


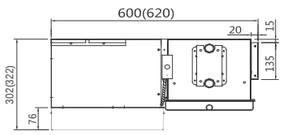
Note: Parameters for 1200/1400 are in parentheses.



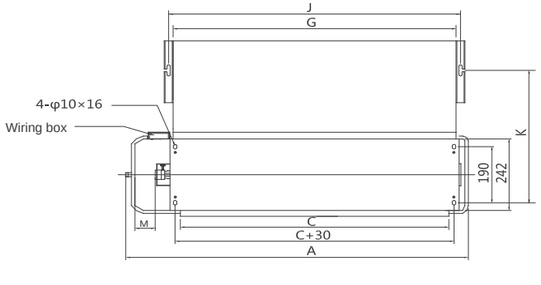
Model TCR	A	C	E	F	G	J	K	M	Plenum Box Width
200	695	435	54	118	477	504	446	50	483.6
300	845	570	54	118	610	637	446	65	615.6
400	930	670	54	118	712	739	446	50	725.6
500	995	730	54	118	772	799	446	55	775.6
600	1085	825	54	118	867	894	446	50	870.6
700	1235	970	54	118	1012	1039	446	55	1015.6
800	1530	1215	54	118	1257	1284	446	105	1260.6
1000	1530	1255	54	118	1297	1324	446	65	1300.6
1200	1795	1510	54	118	1552	1579	457	45	1555.6
1400	1795	1510	54	118	1552	1579	457	45	1555.6

Dimension for unit with Micro-electrostatic filter module





Note: Parameters for 1200/1400 are in parentheses.



Model TCR	A	C	E	F	G	J	K	M	Plenum Box Width
200	695	435	54	118	477	504	446	50	483.6
300	845	570	54	118	610	637	446	65	615.6
400	930	670	54	118	712	739	446	50	725.6
500	995	730	54	118	772	799	446	55	775.6
600	1085	825	54	118	867	894	446	50	870.6
700	1235	970	54	118	1012	1039	446	55	1015.6
800	1530	1215	54	118	1257	1284	446	105	1260.6
1000	1530	1255	54	118	1297	1324	446	65	1300.6
1200	1795	1510	54	118	1552	1579	457	45	1555.6
1400	1795	1510	54	118	1552	1579	457	45	1555.6

Cassette Type FCU

Appearance

Features

- Enhanced Fan Efficiency and Reduced Noise: The fan coil unit features an optimized airflow passage design, significantly improving fan efficiency while minimizing operational noise.
- Four-Way Airflow Distribution: Provides uniform temperature distribution across the space, ensuring consistent comfort.
- Auto Evaporator Cleaning: Automatic moisture cleaning after power-off prevents mildew buildup, maintaining a hygienic environment.
- Emergency High-Speed Fan Mode: A forced high-speed fan operation is activated in emergency situations to ensure rapid response.
- Comfortable and Safe Air Supply: The unit incorporates a metallic electric box and sealed motor holes, offering enhanced fire protection and safer operation.
- Efficient Condensate Drainage: The drain pump with a 1200mm lift capacity efficiently removes condensate, ensuring smooth drainage across various applications.
- Smart Control System: The integrated display and standard controller allow easy monitoring and adjustment of key functions such as the ON/OFF timer, fan speed, operation mode (cooling, dehumidifying, fan, and cooling), and temperature settings.
- Improved Electric Box Design for Maintenance: For cassette-type FCUs with AC motors, the motor is separated from the capacitor, simplifying maintenance and after-sales service.

Item	Operation Ambient Temperature Range℃	Water Supply Temperature Range℃
Cooling	16~40	≥5
Heating	10~35	≤65

FAN COIL UNITS (FCU)

2 pipes, 50Hz

Model			FP-51XD/A-K	FP-68XD/A-K	FP-85XD/B-T(E)	FP-102XD/B-T(E)	FP-125XD/B-T(E)
Air flow volume(H/M/L)		m^3/h	510/400/300	660/560/460	800/665/590	940/770/670	1090/860/760
		CFM	300/235/176	388/330/270	471/385/347	470/453/394	641/506/447
Capacity	Cooling/Heating	kW	2.75/3.4	3.4/3.8	4.5/5.4	5/6.1	6/6.9
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.073	0.078	0.081	0.110	0.100
Water system	Cooling water flow volume	L/s	0.13	0.18	0.22	0.24	0.29
		GPM	2.1	2.8	3.5	3.8	4.6
	Heating water flow volume	L/s	0.16	0.2	0.27	0.29	0.33
		GPM	2.5	3.1	4.3	4.6	5.2
	Cooling pressure drop	kPa	30	38	27	34	21
		Ft.WG	9.8	12.5	8.9	11.2	6.9
	Heating pressure drop	kPa	30	38	37	46	32
		Ft.WG	9.8	12.5	12.1	15.1	10.5
Sound pressure level		dB(A)	46	46	39	49	43
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31	31
Body	Dimension (W×D×H)	mm	592×592×240	592×592×240	840×840×190	840×840×190	840×840×240
		mm	775×730×285	775×730×285	963×963×272	963×963×272	963×963×325
	Net weight/Gross weight	kg	20/24	20/24	25/33	25/33	27/34
Panel	Dimension (W×D×H)	mm	670×670×85	670×670×85	950×950×85	950×950×85	950×950×85
		mm	760×760×90	760×760×90	1033×1038×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	kg	3.5/5	3.5/5	7/11	7/11	7/11

Model			FP-140XD/B-T(E)	FP-160XD/B-T(E)	FP-180XD/B-T(E)	FP-200XD/D-K(E)
Air flow volume(H/M/L)		m^3/h	1400/1160/1000	1500/1200/1000	1640/1360/1200	1700/1430/1150
		CFM	823/682/588	882/706/588	964/800/706	1000/841/676
Capacity	Cooling/Heating	kW	7.4/8.4	8.4/9	9.5/10.5	11.1/11.7
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.143	0.152	0.160	0.140
Water system	Cooling water flow volume	L/s	0.35	0.4	0.45	0.53
		GPM	5.5	6.3	7.1	8.4
	Heating water flow volume	L/s	0.4	0.43	0.49	0.56
		GPM	6.3	6.8	7.8	8.9
	Cooling pressure drop	kPa	30	30	33	21
		Ft.WG	9.8	9.8	10.8	6.9
	Heating pressure drop	kPa	38	36	41	25
		Ft.WG	12.4	11.8	13.5	8.2
Sound pressure level		dB(A)	50	51	50	55
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×240	840×840×240	840×840×320	840×840×320
		mm	963×963×325	963×963×325	963×963×409	963×963×409
	Net weight/Gross weight	kg	27/35	27/35	32/41	33/42
Panel	Dimension (W×D×H)	mm	950×950×85	950×950×85	950×950×85	950×950×85
		mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	kg	7/11	7/11	7/11	7/11

Model			FP-85XD/B-T	FP-102XD/B-T	FP-125XD/B-T	FP-140XD/B-T
Air flow volume(H/M/L)		m^3/h	800/650/550	1020/950/900	1180/1000/900	1400/1250/1150
		CFM	471/382/324	600/599/529	694/588/529	824/735/676
Capacity	Cooling/Heating	kW	4.5/5.6	5/6.5	6/7.8	8/9
Power system	Power supply	V/Ph/Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.075	0.11	0.082	0.143
Water system	Cooling water flow volume	L/s	0.21	0.24	0.29	0.38
		GPM	3.3	3.8	4.6	6
	Heating water flow volume	L/s	0.13	0.17	0.18	0.21
		GPM	2.1	2.7	2.9	3.3
	Cooling pressure drop	kPa	24	36	24	30
		Ft.WG	7.872	11.808	7.872	9.84
	Heating pressure drop	kPa	8	13	9	10
		Ft.WG	2.6	4.3	3	3.3
Sound pressure level		dB(A)	39	49	43	50
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×190	840×840×190	840×840×240	840×840×240
		mm	963×963×272	963×963×272	963×963×325	963×963×325
	Net weight/Gross weight	kg	25/33	25/33	27/34	27/35
Panel	Dimension (W×D×H)	mm	950×950×85	950×950×85	950×950×85	950×950×85
		mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	kg	7/11	7/11	7/11	7/11
Loading quantity	40'GP/40'HQ	Set	131/147	131/147	121/134	121/134

Model			FP-160XD/B-T	FP-180XD/B-T	FP-200XD/B-T	FP-238XD/C-K
Air flow volume(H/M/L)		m^3/h	1550/1400/1300	1800/1450/1350	2000/1700/1450	2200/1900/1300
		CFM	912/824/765	1059/853/794	1176/1000/853	1295/1118/765
Capacity	Cooling/Heating	kW	8.7/10	9.5/11	13/14.6	12/13
Power system	Power supply	V/Ph/Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.152	0.16	0.21	0.17
Water system	Cooling water flow volume	L/s	0.42	0.45	0.62	0.57
		GPM	6.7	7.1	9.8	9
	Heating water flow volume	L/s	0.23	0.27	0.25	0.62
		GPM	3.7	4.3	4	9.8
	Cooling pressure drop	kPa	30	34	34	50
		Ft.WG	9.84	11.152	11.152	16.4
	Heating pressure drop	kPa	11	12	30	60
		Ft.WG	3.6	3.9	9.8	19.7
Sound pressure level		dB(A)	51	50	55	53
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×240	840×840×320	840×840×320	910x910x293
		mm	963×963×325	963×963×409	963×963×409	1020×990×360
	Net weight/Gross weight	kg	27/35	32/41	33/42	39.5/49
Panel	Dimension (W×D×H)	mm	950×950×85	950×950×85	950×950×85	1040×1040×85
		mm	1033×1038×133	1033×1038×133	1033×1038×133	1134×1134×125
	Net weight/Gross weight	kg	7/11	7/11	7/11	8/12

FAN COIL UNITS (FCU)

4 pipes, 50Hz

Model			FP-68XDT/B-K(E)	FP-85XDT/B-K(E)	FP-125XDT/B-K(E)	FP-180XDT/B-K(E)
Air flow volume(H/M/L)		m^3/h	680/618/571	850/764/697	1250/1108/1014	1700/1525/1421
		CFM	400/364/336	500/450/410	736/652/597	1000/897/836
Capacity	Cooling/Heating	kW	3.5/5.8	4.5/6.8	6/9.2	8/12
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.082	0.09	0.135	0.191
Water system	Cooling water flow volume	L/s	0.21	0.24	0.29	0.44
		GPM	3.3	3.8	4.6	7
	Heating water flow volume	L/s	0.17	0.19	0.27	0.36
		GPM	2.7	3	4.3	5.7
	Cooling pressure drop	kPa	44	53	41	48
		Ft.WG	14.4	17.4	13.4	15.7
	Heating pressure drop	kPa	76	83	84	97
		Ft.WG	24.9	27.2	27.5	31.8
Sound pressure level		dB(A)	39	40	43	50
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×190	840×840×190	840×840×240	840×840×320
		mm	963×963×272	963×963×272	963×963×325	963×963×409
	Net weight/Gross weight	kg	25/33	25/33	27/34	32/41

Model			FP-51XDT/B-K	FP-68XDT/B-K	FP-85XDT/B-K	FP-102XDT/B-K
Air flow volume(H/M/L)		m^3/h	510/450/380	680/618/571	850/764/697	1020/900/800
		CFM	300/265/224	400/364/336	500/450/410	600/530/471
Capacity	Cooling/Heating	kW	2.6/3.4	3.5/5.8	4.1/6.4	5.4/8
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.082	0.082	0.082	0.105
Water system	Cooling water flow volume	L/s	0.15	0.21	0.24	0.27
		GPM	2.4	3.3	3.8	4.3
	Heating water flow volume	L/s	0.13	0.17	0.19	0.2
		GPM	2.1	2.7	3	3.2
	Cooling pressure drop	kPa	32	34	57	38
		Ft.WG	10.5	11.2	18.7	12.5
	Heating pressure drop	kPa	70	76	86	70
		Ft.WG	23	25	28.2	23
Sound pressure level		dB(A)	39	39	40	39
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×190	840×840×190	840×840×190	840×840×190
		mm	963×963×272	963×963×272	963×963×272	963×963×272
	Net weight/Gross weight	kg	25/33	25/33	25/33	25/33
Panel	Dimension (W×D×H)	mm	950×950×85	950×950×85	950×950×85	950×950×85
		mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	kg	7/11	7/11	7/11	7/11
Loading quantity	40'GP/40'HQ	Set	131/147	131/147	131/147	131/147

Model			FP-125XDT/B-K	FP-140XDT/B-K	FP-180XDT/B-K	FP-200XDT/B-K
Air flow volume(H/M/L)		m^3/h	1250/1108/1014	1400/1250/1100	1800/1525/1421	2000/1700/1500
		CFM	736/652/597	824/736/647	1059/897/836	1177/1000/883
Capacity	Cooling/Heating	kW	6/9	6.4/9.5	8/11.5	9/12.5
Power system	Power supply	V/Ph/Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
	Input	kW	0.135	0.140	0.191	0.200
Water system	Cooling water flow volume	L/s	0.29	0.3	0.44	0.45
		GPM	4.6	4.8	7	7.1
	Heating water flow volume	L/s	0.22	0.23	0.27	0.3
		GPM	3.5	3.7	4.3	4.8
	Cooling pressure drop	kPa	43	48	40	50
		Ft.WG	14.1	15.7	13.1	16.4
	Heating pressure drop	kPa	92	105	102	108
		Ft.WG	30.2	34.4	33.5	35.4
Sound pressure level		dB(A)	43	85	50	51
Connection pipe diameter	Water inlet & outlet (inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain (outer thread)	mm	31	31	31	31
Body	Dimension (W×D×H)	mm	840×840×240	840×840×240	840×840×320	840×840×320
		mm	963×963×325	963×963×325	963×963×409	963×963×409
	Net weight/Gross weight	kg	27/34	27/34	32/41	32/41
Panel	Dimension (W×D×H)	mm	950×950×85	950×950×85	950×950×85	950×950×85
		mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	kg	7/11	7/11	7/11	7/11

Nominal Operating Condition

Notes:

1. The data are tested under these testing conditions as below:

Item		Nominal test condition (temperature)			
		Inlet Air		Water	
		DB °C	WB °C	Inlet °C	Outlet °C
2 PiPes 50Hz	Cooling	27	19	7	12
	Heating	20	≤15	45	40
2 PiPes 60Hz	Cooling	27	19.5	7	12
	Heating	21	-	60	Based on the water flow volume at the rated cooling capacity
4 PiPes	Cooling	27	19	7	12
	Heating	20	≤15	65	55

2. Sound pressure level is tested according to GB/T 19232-2019.
3. Not all the certification of products for different markets are showed above, please contact us if related information is needed.

Floor & Ceiling Type FCU

Appearance


Inner thread copper


Washable filter


Anti-cold function


Quiet function

Auto clean

Multi fan speed


Self-diagnosis


Compact design

Features

- Anti-corrosion Plastic Fan
  - Light weight, providing bigger air volume under the drive of the same motor;
  - Good consistency between vane and volute casing, achieving quiet effect;
  - Airflow passage and vane angle are optimized by CFD software, offering higher efficiency. The volute casing is divided into upper part and lower part, convenient for maintenance.
- The fan will operate only if the chilled water inlet temperature is lower than the setting value to avoid warm air under cooling condition.
- Specially-designed electric box structure: for the floor ceiling type with AC motor, the motor is separated with the capacitor, which can facilitate after-sales replacement and maintenance.

Opeartion Range

Item	Operation Ambient Temperature Range °C	Water Supply Temperature Range °C
Cooling	16~40	≥5
Heating	10~35	≤65

50Hz

Model(B Series)			FP-34ZD/B-K *3	FP-51ZD/B-K *3	FP-68ZD/B-K *3	FP-85ZD/B-K *3	FP-102ZD/B-K *3
Air flow volume(H/M/L)		m^3/h	420/350/250	510/400/300	680/550/400	850/650/500	1020/800/600
		CFM	247/205/147	300/235/176	400/323/235	500/382/294	600/470/353
Capacity	Cooling/Heating	kW	2/2.5	2.6/3.2	3.5/4	4.2/4.6	5.2/6
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.04	0.045	0.06	0.07	0.095
Water system	Cooling water flow volume	L/s	0.1	0.12	0.17	0.2	0.25
		GPM	1.5	2	2.6	3.2	4
	Heating water flow volume	L/s	0.12	0.15	0.19	0.22	0.29
		GPM	1.9	2.4	3	3.5	4.5
	Cooling pressure drop	kPa	16	16	25	20	30
		Ft.WG	5.9	5.9	8.2	6.6	9.8
	Heating pressure drop	kPa	20	20	30	30	40
		Ft.WG	6.6	6.6	9.8	9.8	13.1
Sound pressure level		dB(A)	34	34	41	41	43
	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	mm	17	17	17	17	17
	Outline	mm	870×235×665	870×235×665	870×235×665	1200×235×665	1200×235×665
	Package	mm	970×285×767	970×285×767	970×285×767	1300×285×767	1300×285×767
Net weight/Gross weight		kg	24/29	24/29	24/29	32/38	32/38
Loading quantity	40'GP/40'HQ	Set	288/324	288/324	288/324	189/216	189/216
Standard	Wireless remote controller	-	YAP1F	YAP1F	YAP1F	YAP1F	YAP1F

Model(B Series)			FP-119ZD/B-K *3	FP-136ZD/B-K *3	FP-170ZD/B-K *3	FP-204ZD/B-K *3
Air flow volume(H/M/L)		m^3/h	1200/950/700	1360/1100/800	1800/1400/1000	2040/1700/1200
		CFM	706/559/412	800/647/471	1059/824/589	1201/1000/706
Capacity	Cooling/Heating	kW	5.9/6.6	6.6/7.5	9/11	10/12.5
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.11	0.14	0.145	0.195
Water system	Cooling water flow volume	L/s	0.28	0.31	0.43	0.48
		GPM	4.5	5	6.8	7.56
	Heating water flow volume	L/s	0.31	0.36	0.52	0.6
		GPM	5	5.67	8.3	9.45
	Cooling pressure drop	kPa	30	30	30	30
		Ft.WG	9.8	9.8	9.8	9.8
	Heating pressure drop	kPa	96	96	144	106
		Ft.WG	31.5	31.5	47.2	34.8
Sound pressure level		dB(A)	45	43	47	55
	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	mm	17	17	17	17
	Outline	mm	1200×235×665	1570x235x665	1570x235x665	1570x235x665
	Package	mm	1300x285x767	1666x285x767	1666x285x767	1666x285x767
Net weight/Gross weight		kg	32/38	41/43	43/46	43/46
Loading quantity	40'GP/40'HQ	Set	189/216	147/168	147/168	147/168

FAN COIL UNITS (FCU)

Model			FP-34ZD-K(E)	FP-51ZD-K(E)	FP-68ZD-K(E)	FP-85ZD-K(E)
Air flow volume(H/M/L)		m^3/h	400/300/210	510/400/310	680/550/450	690/570/485
		CFM	235/176/124	300/235/182	400/324/265	406/335/285
Capacity	Cooling/Heating	kW	1.9/2.4	2.8/3.4	3.5/4.1	3.6/4.2
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.046	0.065	0.076	0.084
Water system	Cooling water flow volume	L/s	0.09	0.13	0.17	0.17
		GPM	1.4	2.1	2.7	2.7
	Heating water flow volume	L/s	0.17	0.16	0.19	0.22
		GPM	2.7	2.5	3	3.5
	Cooling pressure drop	kPa	22	26	48	20
		Ft.WG	7.2	8.5	15.7	6.6
	Heating pressure drop	kPa	22	26	48	20
		Ft.WG	7.2	8.5	15.7	6.6
Sound pressure level		dB(A)	37	38	45	47
	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	mm	17	17	17	17
	Outline	mm	840×695×238	840×695×238	840×695×238	840×695×238
	Package	mm	960×830×330	960×830×330	960×830×330	960×830×330
Net weight/Gross weight		kg	26/33	26/33	27/34	27/34
Loading quantity	40'GP/40'HQ	Set	224/267	224/267	224/267	224/267

Model			FP-102ZD-K(E)	FP-136ZD-K(E)	FP-170ZD-K(E)	FP-204ZD-K(E)
Air flow volume(H/M/L)		m^3/h	910/756/600	1030/854/700	1800/1260/850	1940/1500/1050
		CFM	535/445/353	606/502/412	1059/741/500	1141/882/618
Capacity	Cooling/Heating	kW	5.2/6	6.35/6.7	8.9/10.8	9.9/12.2
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.095	0.096	0.152	0.2
Water system	Cooling water flow volume	L/s	0.25	0.3	0.43	0.47
		GPM	4	4.8	6.8	7.5
	Heating water flow volume	L/s	0.3	0.32	0.48	0.52
		GPM	4.8	5.1	7.6	8.3
	Cooling pressure drop	kPa	80	99	115	100
		Ft.WG	26.2	32.3	37.7	32.8
	Heating pressure drop	kPa	80	99	115	100
		Ft.WG	26.2	32.5	37.7	32.8
Sound pressure level		dB(A)	49	48	50	55
	Water inlet & outlet(inner thread)	Inch	Rc3/4	Rc3/4	Rc3/4	Rc3/4
	Condensed water drain(outer thread)	mm	17	17	17	17
	Outline	mm	1300×600×188	1300×600×188	1590×695×238	1590×695×238
	Package	mm	1414×724×248	1414×724×248	1714×830×330	1714×830×330
Net weight/Gross weight		kg	31.5/36.5	31.5/36.5	48.5/57	48.5/57
Loading quantity	40'GP/40'HQ	Set	220/244	220/244	111/117	111/117

Nominal Operating Condition

Notes:

1. The data are tested under these testing conditions as below：

Item		Nominal test condition (temperature)			
		Inlet Air ℃		Water ℃	
		DB	WB	Inlet	Outlet
2 PiPes 50Hz	Cooling	27	19	7	12
	Heating	20	≤15	45	40

2. Sound pressure level is tested according to GB/T 19232-2019.
3. Not all the certification of products for different markets are showed above, please contact us if related information is needed.

Console (Vertical Exposed) Type

Appearance


Inner thread copper


Washable filter


Quiet function


Multi fan speed


Compact design

Features

- Low noise thanks to plastic impeller.
- Easy installation and convenient maintenance.
- With well-tailored acoustic and thermal insulation liner for quiet operation and better performance.
- With compact structure, the installation of the unit is flexible, convenient and space-saving.
- Unique electric box sub-assy structure design: motor and capacitor are separated, external capacitor for easy maintenance and replacement; the capacitor is plug-in type for easy removal and maintainance.

Opeartion Range

Item	Operation Ambient Temperature Range ℃	Water Supply Temperature Range ℃
Cooling	16~40	≥5
Heating	10~35	≤65

Technical Specifications

Model			FP-22LM/D-K	FP-34LM/D-K	FP-51LM/D-K	FP-68LM/D-K	FP-85LM/D-K
Air flow volume(H/M/L)		m^3/h	300/250/200	400/350/300	580/500/420	680/530/380	760/600/400
		CFM	177/147/118	235/206/177	341/294/247	400/312/224	447/353/235
Capacity	Cooling/Heating	kW	1.4/2	1.9/2.3	2.8/3.4	3.2/3.8	4.25/4.9
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.035	0.046	0.056	0.066	0.068
Water system	Cooling water flow volume	L/s	0.07	0.09	0.14	0.16	0.21
		GPM	1.1	1.4	2.2	2.5	3.3
	Heating water flow volume	L/s	0.09	0.11	0.17	0.19	0.26
		GPM	1.4	1.7	2.7	3	4.1
	Cooling pressure drop	kPa	10	15	18	21	27
		Ft.WG	3.3	4.9	5.9	6.9	8.9
	Heating pressure drop	kPa	20	22	27	30	38
		Ft.WG	6.6	7.2	8.9	9.8	12.5
Sound pressure level		dB(A)	36	38	39	42	45

Model			FP-102LM/D-K	FP-119LM/D-K	FP-136LM/D-K	FP-170LM/D-K	FP-204LM/D-K
Air flow volume(H/M/L)		m^3/h	1000/740/510	1100/860/610	1100/870/620	1700/1275/850	1900/1425/950
		CFM	589/435/300	647/506/359	647/512/364	1000/750/500	1118/839/559
Capacity	Cooling/Heating	kW	5/5.9	5.3/6.45	5.9/6.8	9.2/10.7	10.1/11.5
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.11	0.124	0.128	0.155	0.195
Water system	Cooling water flow volume	L/s	0.25	0.26	0.28	0.44	0.48
		GPM	4	4.1	4.4	7	7.6
	Heating water flow volume	L/s	0.28	0.3	0.32	0.51	0.55
		GPM	4.4	4.8	5.1	8.1	8.7
	Cooling pressure drop	kPa	18	20	25	45	55
		Ft.WG	5.9	6.6	8.2	14.7	18
	Heating pressure drop	kPa	25	27	30	55	65
		Ft.WG	8.2	8.9	9.8	18	21.3
Sound pressure level		dB(A)	48	50	50	49	52

Nominal Operating Condition

Notes:

1. The data are tested under these testing conditions as below：

Item		Nominal test condition (temperature)			
		Inlet Air ℃		Water ℃	
		DB	WB	Inlet	Outlet
2 PiPes 50Hz	Cooling	27	19	7	12
	Heating	20	≤15	45	40

2. Sound pressure level is tested according to GB/T 19232-2019.
3. Not all the certification of products for different markets are showed above, please contact us if related information is needed.

Wall Mounted (Mid-Wall) Type

Appearance

Panel B4

Inner thread copper | Washable filter | Anti-cold function | Quiet function | Auto clean | Multi fan speed | Compact design

Features

- Optimized Airflow Design for Enhanced Efficiency and Low Noise: The advanced airflow passage design significantly improves fan efficiency and reduces operational noise for quieter performance.
- Air Vent for Enhanced Reliability: The unit is equipped with an air vent, ensuring more reliable and efficient operation.
- Optimized Electric Box Structure for Easy Maintenance: In wall-mounted units with an AC motor, the motor is separated from the capacitor, allowing for easier maintenance and after-sales replacement.

Opeartion Range

Item	Operation Ambient Temperature Range ℃	Water Supply Temperature Range ℃
Cooling	16~40	≥5
Heating	10~35	≤65

Model(Lomo--DC)			FPD-34BB4/A-K	FPD-51BB4/A-K	FPD-68BB4/A-K	FPD-85BB4/A-K
Air flow volume(H/M/L)		m^3/h	340/255/170	510/382/255	680/510/340	850/637/425
		CFM	200/150/100	300/225/150	400/300/200	500/375/250
Capacity	Cooling/Heating	kW	2.2/2.4	2.7/2.9	3.6/3.9	4.3/4.7
Power system	Power supply	V/Ph/Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz	220-240V~50Hz
	Input	kW	0.012	0.018	0.029	0.043
Water system	Cooling water flow volume	L/s	0.1	0.14	0.18	0.21
		GPM	1.6	2.2	2.9	3.3
	Heating water flow volume	L/s	0.11	0.14	0.19	0.22
		GPM	1.7	2.2	3	3.5
	Cooling pressure drop	kPa	20	30	43	52
		Ft.WG	6.6	9.8	14.1	17.1
	Heating pressure drop	kPa	24	35	55	65
		Ft.WG	7.9	11.5	18	21.3
Sound pressure level		dB(A)	31	37	43	48
Connetion pipe	Water inlet & outlet(inner thread)	Inch	1/2	1/2	1/2	1/2
	Condensed water drain(outer thread)	mm	15.6	15.6	15.6	15.6
Dimension (W×D×H)	Outline	mm	845×209×289	845×209×289	845×209×289	970×300×224
	Package	mm	973×278×364	973×278×364	973×278×364	1093×380×305
Net weight/Gross weight		kg	10.5/12.5	10.5/12.5	10.5/12.5	12.5/15.5
Loading quantity	40'GP/40'HQ	Set	604/682	604/682	604/682	461/525

Nominal Operating Condition

Notes:

1. The data are tested under these testing conditions as below:

Item		Nominal test condition (temperature)			
		Inlet Air ℃		Water ℃	
		DB	WB	Inlet	Outlet
2 Pipes 50Hz	Cooling	27	19	7	12
	Heating	20	≤15	45	40

2. Sound pressure level is tested according to GB/T 19232-2019.
3. Not all the certification of products for different markets are showed above, please contact us if related information is needed.

Controllers for FCU

Control system \ Product series			Concealed ceiling type(2 Pipes)	Concealed ceiling type(4 Pipes)	Cassette type	Floor ceiling type	Floor ceiling type (B Series)	Wall mounted type	Wall mounted type (Lomo-DC)
Wireless remote controller	YB1FA(MOTO)				●	●		●	
	YAP1F						●		●
Wired remote controller	XE7A-17/E(M)						○		○
	XE70-17/E(M) (with BMS interface)				○	○		○	
Digital thermostat	WK-011PM		○						
	WK-011PN			○					
	WK-010PM		○						
	WK-010PN			○					
	WK-010PV		○						
	WK-010PW		○						
	WK-010PR			○					
	WK-010PS			○					

Note:
● means standard, ○ means optional

New Intelligent Controllers

Features

- High-sensitivity capacitive touch keys
- Built-in Wi-Fi and RS-485 interfaces
- Achieve ultimate speed and convenience

Model Number: CDC-024

Compact Air Handling Units

Compact air handling unit provides you an energy efficient large capacity multi-functional terminal device of superior performance, better reliability with lower installation cost. The product was designed with features of configuration flexibility, integrated control options, and proven performance to bring you the optimal system with function of filtering, humidifying, and cooling(heating) for your building.

Ceiling Mounted (Horizontal) Type

Appearance

A Series

Jet Series

Series Features

- A large drain pan is designed under the heat exchanger,motor and fan to gurantee all drainage water will be efficiently collected.
- Detachable panel and adjustable motor base for easy maintenance.
- Wide range external static pressure selectable.
- Qualified and low noise fan motor.

Nominal Condition

Nominal test condition (temperature)					
Item		DB(°C)	WB(°C)	Inlet(°C)	Outlet(°C)
Return air type	Cooling	27	19.5	7	12
	Heating	21	-	60	-
Fresh air type	Cooling	35	28	7	12
	Heating	7	-	60	-

* : These series models are basic models. They may not have the required certificate in your targeted market. For more information, please consult your regional sales manager.

Compact Air Handling Units

A Series

- Integral frame structure casing with double skin panels made of galvanized steel sheet.
- 4-row and 6-row coil optional.
- Airflow range:1500-12000m³/h.
- Designed excellently against air leakage and surface water condensation.

Return air

Model		G-1.5WD(I)(Y)/A-M	G-2WD(I)(Y)/A-M	G-2.5WD(I)(Y)/A-M	G-3WD(I)(Y)/A-M	G-4WD(I)(Y)/A-M	G-5WD(I)(Y)/A-M
Air flow volume	m³/h	1500a	2000	2500	3000	4000	5000
ESP range (4/6 rows)	Pa	50~350/50~350	50~600/50~600	50~600/50~600	50~400/50~350	50~450/50~450	50~600/50~600
Cooling capacity (4/6 rows)	kW	9.8/11.96	12.5/14.26	15.6/19.2	18.7/22.13	24.9/30.18	31/35.4
Heating capacity (4/6 rows)	kW	15.8/17.12	21.4/22.62	27.3/25.8	33.5/33	43.2/44.2	56.1/53.1
Water flow volume (4/6 rows)	L/s	0.43/0.57	0.53/0.65	0.66/0.88	0.79/1.03	1.1/1.44	1.3/1.71
Pressure drop (4/6 rows)	kPa	6.5/5.25	9.2/7.85	16.3/15.4	26.2/19.92	20.1/24.6	35.3/34
Water inlet pipe diameter	mm	25	25	25	25	32	32
Water outlet pipe diameter	mm	25	25	25	25	32	32
Condensed water drain pipe diameter	mm	25	25	25	25	25	25
Sound pressure level	dB(A)	≤58	≤58	≤58	≤58	≤60	≤62
Outline dimension(W×D×H)	cm	103×100×57	103×100×57	123×100×57	103×100×67	123×100×77	143×100×77

Model		G-6WD(I)(Y)/A-M	G-7WD(I)(Y)/A-M	G-8WD(I)(Y)/A-M	G-9WD(I)(Y)/A-M	G-10WD(I)(Y)/A-M	G-12WD(I)(Y)/A-M
Air flow volume	m³/h	6000	7000	8000	9000	10000	12000
ESP range (4/6 rows)	Pa	50~500/50~450	50~350/50~350	50~400/50~400	50~600/50~600	50~600/50~600	50~600/50~600
Cooling capacity (4/6 rows)	kW	37.4/44.1	43.6/50.8	49.8/62.5	56/67.8	62.4/80.8	74.8/95.9
Heating capacity (4/6 rows)	kW	66.8/63.5	78.8/72.5	90.8/88.7	96.3/99.8	115.8/110.5	135.6/137.6
Water flow volume (4/6 rows)	L/s	1.6/2.1	1.83/2.43	2.1/2.85	2.4/3.1	2.6/3.88	3.2/4.65
Pressure drop (4/6 rows)	kPa	38.9/34.1	49.7/17.3	53.5/20.8	34/14.3	48.9/16.5	37.3/25.6
Water inlet pipe diameter	mm	40	40	40	50	50	50
Water outlet pipe diameter	mm	40	40	40	50	50	50
Condensed water drain pipe diameter	mm	25	25	25	25	25	25
Sound pressure level	dB(A)	≤62	≤64	≤64	≤66	≤66	≤68
Outline dimension(W×D×H)	cm	143×100×77	163×100×77	183×100×77	203×100×77	213×100×77	253×100×77
Package dimension(W×D×H)	cm	173×130×107	193×130×107	213×130×107	233×130×107	243×130×107	283×130×107

Fresh air

Model		G-1.5WDX(I)(Y)/A-M	G-2WDX(I)(Y)/A-M	G-2.5WDX(I)(Y)/A-M	G-3WDX(I)(Y)/A-M	G-4WDX(I)(Y)/A-M	G-5WDX(I)(Y)/A-M
Air flow volume	m3/h	1500	2000	2500	3000	4000	5000
ESP range (4/6 rows)	Pa	50~350/50~350	50~600/50~600	50~600/50~600	50~400/50~350	50~450/50~450	50~600/50~600
Cooling capacity (4/6 rows)	kW	20.6/25.8	27.5/33.5	33/41.6	40.7/50.2	55.3/66.6	66.3/82.4
Heating capacity (4/6 rows)	kW	22.8/24.8	28.6/32.1	35.8/41.3	42.5/49.8	55.9/64.3	68.9/81.1
Water flow volume (4/6 rows)	L/s	0.99/1.25	1.28/1.6	1.57/2.1	1.9/2.4	2.63/3.2	3.17/4
Pressure drop (4/6 rows)	kPa	30.3/30.4	40.5/22.3	25.4/35.6	46.6/42.5	30.8/50.8	56.9/35.6
Water inlet pipe diameter	mm	25	25	25	25	32	32
Water outlet pipe diameter	mm	25	25	25	25	32	32
Condensed water drain pipe diameter	mm	25	25	25	25	25	25
Sound pressure level	dB(A)	≤58	≤58	≤58	≤58	≤60	≤62
Outline dimension(W×D×H)	cm	103×100×57	103×100×57	123×100×57	103×100×67	123×100×77	143×100×77
Package dimension(W×D×H)	cm	133×130×87	133×130×87	153×130×87	133×130×97	153×130×107	173×130×107

Model		G-6WDX(I)(Y)/A-M	G-7WDX(I)(Y)/A-M	G-8WDX(I)(Y)/A-M	G-9WDX(I)(Y)/A-M	G-10WDX(I)(Y)/A-M	G-12WDX(I)(Y)/A-M
Air flow volume	m³/h	6000	7000	8000	9000	10000	12000
ESP range (4/6 rows)	Pa	50~500/50~450	50~350/50~350	50~400/50~400	50~600/50~600	50~600/50~600	50~600/50~600
Cooling capacity (4/6 rows)	kW	79.6/98.8	92.9/112.3	106.3/129.7	119.5/148.9	134.9/165.2	159.3/198.8
Heating capacity (4/6 rows)	kW	80.7/96.5	89.5/113.6	108.8/124.1	121.4/142.6	138.6164.5	160.9/197.1
Water flow volume (4/6 rows)	L/s	3.8/4.7	4.43/5.4	5.1/6.1	5.7/7.3	6.4/8.4	7.6/9.5
Pressure drop (4/6 rows)	kPa	45.8/29.4	50.5/31.5	55.1/40.4	45.2/42.5	47.4/46.8	50.8/48.7
Water inlet pipe diameter	mm	40	40	40	50	50	50
Water outlet pipe diameter	mm	40	40	40	50	50	50
Condensed water drain pipe diameter	mm	25	25	25	25	25	25
Sound pressure level	dB(A)	≤62	≤64	≤64	≤66	≤66	≤68
Outline dimension(W×D×H)	cm	143×100×77	163×100×77	183×100×77	203×100×77	213×100×77	253×100×77

Optional Controlling Components for A Series

Control System	DDC	Starting Cabinet	Wired Controller
Model	/	/	WK-E00110A
			WK-E00000A
	 Optional	 Optional	 Optional

Compact Air Handling Units

Jet Series

The Jet-type AHU is a compact air handling unit designed for efficient space utilization. It features a ceiling-mounted structure and adjustable spherical nozzles for direct, ductless air supply, reducing installation costs and ceiling height. This unit ensures precise temperature control and is ideal for supermarkets, commercial buildings, workshops, and large venues.

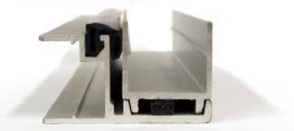
For installations near corrosive environments (e.g., seashores, paper mills, steel mills, or chemical plants), consult the relevant plant(s) to ensure stable operation.

Jet Series Features & Advantages

① Labyrinth-type sealing structure

The cabinet panel utilizes advanced overall foam molding technology, encased in an aluminum alloy profile frame with concave and convex grooves. Upon installation, these grooves interlock to form a tenon-style labyrinth sealing structure. Secured by bolts and embedded nuts, this design creates a robust, torsion-resistant sealing cabinet. The cabinet's mechanical strength meets the AHRI1350 CD4 standard, while its air leakage rating achieves the AHRI1350 CL1 standard, ensuring superior durability and airtight performance.

A labyrinth sealing structure, with the concave and convex modules interlocked



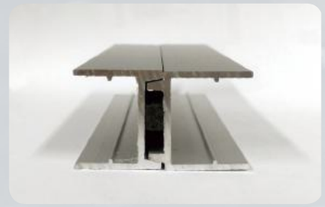
② High Efficiency Heat Exchanger

The heat exchanger is designed using AHRI-certified professional selection software, ensuring that the model parameters accurately reflect the performance of the actual heat exchanger. This allows the heat exchanger to meet diverse model selection requirements for customers under various operating conditions.

The coil features high-quality, RoHS-certified copper tubes and hydrophilic aluminum fins, integrated through an advanced mechanical tube expansion process. Each coil undergoes an air tightness test before delivery, guaranteeing zero leakage and reliable operation.

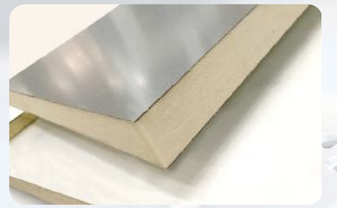
③ No cold bridge, no rust

The cabinet interior is insulated from the exterior through high-pressure polyurethane foam and a specially designed rubber sealing strip, effectively preventing cold bridging. The cold bridge factor meets the AHRI1350 CB2 standard. Additionally, the external metal plate is enclosed by an aluminum frame, with its corners sealed off from exposure to humid air, ensuring complete dust prevention and maintaining optimal performance.



④ Excellent Thermal Insulation

The cabinet panels are constructed using one-time foam molding of polyurethane, featuring a low heat conductivity coefficient and both external and internal metal plates. With a foaming density of ≥ 50 kg/m³, the panels provide excellent heat preservation, thermal insulation, shock absorption, and noise reduction. The thermal insulation performance meets the AHRI1350 CT2 standard, ensuring superior energy efficiency and operational stability.



⑤ Clean & hygienic, quiet operation

The unit features an integral drain pan with corrosion protection through static plastic spraying, ensuring heat preservation. The drain pan is positioned on the bottom of the cabinet, and a water discharge slope is created during installation to ensure proper drainage of condensate, preventing bacteria buildup. The unit is enclosed with double-wall foaming boards, providing excellent thermal insulation and reducing operational noise.

⑥ Intelligent integrated control

The unit features mechanical and electrical integrated control, allowing seamless management of the fan, motor, and water valve. The control system uses low-voltage devices and temperature controllers from internationally recognized brands. With a communication-enabled temperature controller, the unit can connect to third-party systems like building automation and control systems for remote and network-based monitoring.

The control cabinet includes multiple protection features, such as short-circuit, power loss, and overload protection, ensuring stable operation. Additionally, the unit provides external interlocking options for fire valves, fresh air valves, and switching-type water valves.

This integrated control system optimizes chiller energy efficiency while maintaining a comfortable indoor temperature.

Specifications (Jet Type)

Return Air Condition

Model	Air Flow	Normal Cold						Highly Cold						Condensate Water Pipe Diameter	Power Supply	Drive Type
		Rated Cooling Capacity	Rated Heating Capacity	Water Flow	Water Resistance	Motor power	Chilled Water Pipe Diameter	Rated Cooling Capacity	Rated Heating Capacity	Water Flow	Water Resistance	Motor power	Chilled Water Pipe Diameter			
TFD	m^3/h	kW	kW	l/s	kPa	kW	DN	kW	kW	l/s	kPa	kW	DN	DN		
010	1000	5.1	10.2	0.24	20.8	0.18	32	7.2	12.4	0.34	25.0	0.18	32	25	380V 3 N - 50Hz	Direct drive
020	2000	11.5	21.2	0.55	59.2	0.55	32	14.9	25.3	0.71	84.9	0.55	32	25		
030	3000	17.5	32.0	0.83	63.8	1.1	32	22.0	37.3	1.05	76.2	1.1	32	25		Belt drive
040	4000	23.4	41.5	1.13	89.7	1.1	32	30.1	49.1	1.43	87.1	1.1	32	25		
050	5000	28.3	51.4	1.37	76.2	1.5	32	35.2	61.8	1.68	47.3	1.5	40	25		
060	6000	34.5	61.7	1.64	86.4	1.5	32	43.7	73.9	2.08	76.0	1.5	40	25		
070	7000	40.3	71.3	1.92	81.0	2.2	32	49.4	85.3	2.35	70.6	2.2	40	25		
080	8000	46.2	83.1	2.20	81.2	2.2	32	57.6	98.3	2.74	89.9	3.0	40	25		
100	10000	59.9	108.1	2.85	88.9	3.0	40	75.1	135.3	3.58	55.8	3.0	50	25		
120	12000	69.3	131.7	3.30	89.8	3.0	40	85.8	161.1	4.09	76.9	3.0	50	25		

★ Note:

1. Cooling: The dry bulb temperature of inlet air is 27°C, the wet bulb temperature is 19.5°C, and the water inlet/outlet temperature is 7°C/12°C;
2. Heating: The dry bulb temperature of inlet air is 15°C, the hot water inlet/outlet temperature is 60°C/50°C.
3. The unit is not equipped with external static pressure. If a return air duct is required, please clarify the requirement when you make the order.
4. The specifications are subject to change due to product improvement without prior notice.
5. The water volume in the above table indicates the cold water supply volume. Because the hot water supply volume is smaller than cold water supply volume, cold water supply volume is provided in the table for your reference to select the water pump.

Fresh Air Condition

Model	Air Flow	Normal Cold						Highly Cold						Condensate Water Pipe Diameter	Power Supply	Drive Type
		Rated Cooling Capacity	Rated Heating Capacity	Water Flow	Water Resistance	Motor power	Chilled Water Pipe Diameter	Rated Cooling Capacity	Rated Heating Capacity	Water Flow	Water Resistance	Motor power	Chilled Water Pipe Diameter			
TFD	m^3/h	kW	kW	l/s	kPa	kW	DN	kW	kW	l/s	kPa	kW	DN	DN		
010	1000	13.9	13.2	0.66	85.6	0.18	32	15.8	15.6	0.75	79.2	0.18	32	25	380V 3 N - 50Hz	Direct drive
020	2000	27.0	27.5	1.29	84.8	0.55	32	31.2	31.3	1.49	64.6	0.55	32	25		
030	3000	39.9	40.9	1.90	87.0	1.1	32	45.8	45.1	2.18	80.5	1.1	32	25		Belt drive
040	4000	49.7	51.1	2.37	79.9	1.1	32	63.8	61.8	3.04	66.3	1.1	40	25		
050	5000	64.5	64.0	3.07	84.0	1.5	32	75.4	70.3	3.59	81.6	1.5	40	25		
060	6000	72.7	75.5	3.46	38.5	1.5	50	92.6	91.9	4.41	80.5	1.5	40	25		
070	7000	84.1	87.1	4.00	61.0	2.2	50	105.6	104.8	5.03	79.5	2.2	50	25		
080	8000	99.0	101.7	4.71	87.7	2.2	50	120.7	119.7	5.75	85.7	3.0	50	25		
100	10000	133.1	133.3	6.34	50.6	3.0	65	160.2	157.9	7.63	60.2	3.0	65	25		
120	12000	149.4	155.1	7.12	69.1	3.0	65	185.2	180.4	8.20	82.1	3.0	65	25		

★ Note:

1. Cooling: The dry bulb temperature of inlet air is 35°C, the wet bulb temperature is 28°C, and the water inlet/outlet temperature is 7°C/12°C;
2. Heating: The dry bulb temperature of inlet air is 7°C, the hot water inlet/outlet temperature is 60°C/50°C.
3. The unit is not equipped with external static pressure. If a fresh air duct is required, please specify the requirement when you make the order.
4. The specifications are subject to change due to product improvement without prior notice.
5. The water volume in the above table indicates the cold water supply volume. Because the hot water supply volume is smaller than cold water supply volume, cold water supply volume is provided in the table for your reference to select the water pump.

Jet Type Unit Design Selection

The thermal performance parameter calculation of the jet type air handling unit adopting the spherical nozzle is the same with that of the ordinary ceiling type unit. In design selection, mainly the air flow organization is calculated. For a specified project, the proper jet type air handling unit needs to be selected after the air supply distance, unit installation height, air supply temperature, and air supply volume are determined, and the cold and hot air flow supplied by the unit must meet the following requirements:
1. The cold and hot air are sent to the specified location.
2. The cold jet flow does not drop down during the supply process to avoid causing uncomfortable feelings to people.
3. The hot air can be sent to the required height and location.
4. The air side temperature difference meets the design requirement.

Design selection must consider the mutual impact of the multiple air supply nozzles of the unit. The spread of the jet flow is approximately 0.4 times wider than the jet range. An appropriate configuration is to make the unit deployment density slightly smaller than the diffusion width. If the unit is installed closely to the ceiling, the impact of adhesion should also be considered. The jet range of the attached air flow is 1.4 times larger than the common air flow.

Jet range recommendation

Based on the performances of the unit and the spherical nozzle, the recommended horizontal air supply range (unit: m) of various types of air handling units is as follows:

Model TFD	010	020	030	040	050	060	070	080	100	120
Jet range	14	21	21	21	25	22	28	30	28	31
Distance	20	27	27	27	31	28	34	36	34	37

★ Notes

The maximum spread width of the unit jet flow is about 40% of the jet range. Therefore, unit deployment should take into consideration the air flow spread angle, and the distance between units should not be too large.
The units can be deployed on a single side or on opposite sides. If neither the deployment can meet the jet range, an induction fan can be adopted to continue the air supply. The induction fan is deployed by every 4 to 6 meters in vertical direction, and by every 6 to 10 meters in horizontal direction.
Range: distance when the air side air flow is 0.5m/s.
Distance: distance when the air side air flow is 0 m/s.

Fan Motor Power

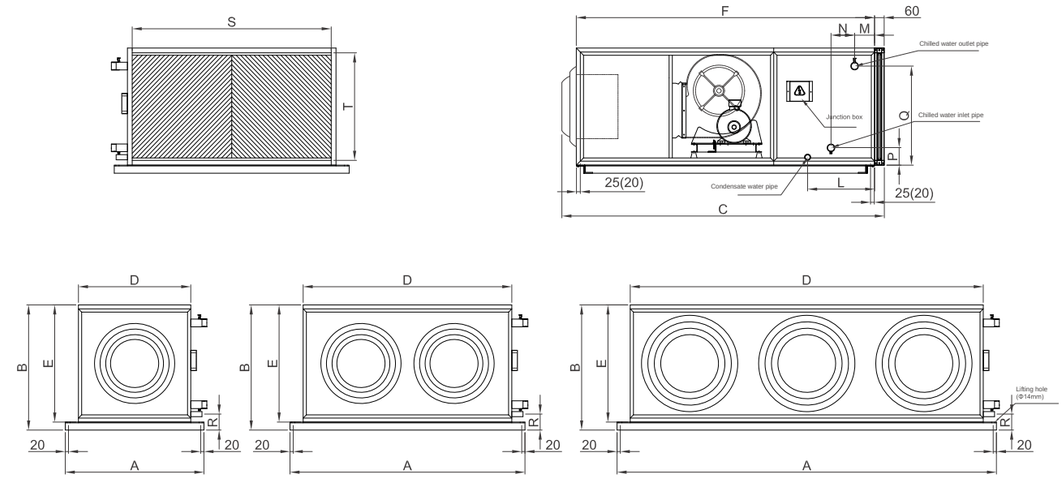
Comparison Between Air Pressures and Motor Powers

Comparison Between Air Pressures and Motor Powers

Model TFD	Air Flow (m^3/h)	Cooling Coil	External Total Pressure (Pa)								
			80	120	160	200	240	280	320	360	400
010	1000	N	0.18	0.18	0.25	0.32					
		H	0.18	0.25	0.32	0.32					
015	1500	N		0.32	0.32	0.32	0.37	0.45			
		H		0.32	0.32	0.37	0.45	0.45			
020	2000	N		0.32	0.32	0.37	0.37	0.45	0.45		
		H		0.32	0.37	0.37	0.45	0.45	0.55		
025	2500	N		0.45	0.55	0.55	0.75	0.75	0.75		
		H		0.55	0.55	0.75	0.75	0.75	0.75		
030	3000	N			0.55	0.75	0.75	0.75	0.75	1.1	1.1
		H			0.75	0.75	0.75	0.75	1.1	1.1	1.1
040	4000	N			1.1	1.1	1.1	1.1	1.1	1.1	1.5
		H			1.1	1.1	1.1	1.1	1.1	1.5	1.5
050	5000	N			1.1	1.1	1.1	1.1	1.5	1.5	1.5
		H			1.1	1.1	1.1	1.5	1.5	1.5	1.5
060	6000	N			1.1	1.1	1.5	1.5	1.5	1.5	2.2
		H			1.1	1.5	1.5	1.5	1.5	2.2	2.2
070	7000	N			1.5	1.5	2.2	2.2	2.2	2.2	2.2
		H			1.5	2.2	2.2	2.2	2.2	2.2	2.2
080	8000	N			2.2	2.2	2.2	2.2	2.2	3.0	3.0
		H			2.2	2.2	2.2	2.2	3.0	3.0	3.0
100	10000	N			2.2	3.0	3.0	3.0	3.0	3.0	3.0
		H			3.0	3.0	3.0	3.0	3.0	3.0	4.0
120	12000	N				3.0	3.0	3.0	4.0	4.0	4.0
		H				3.0	3.0	4.0	4.0	4.0	4.0
150	15000	N						4.0	4.0	5.5	5.5
		H						4.0	5.5	5.5	5.5

Dimensions

Jet Type Unit



Model TFD	A	B	C	D	E	F	L	M		N			P	Q	R	Air Return Flange		Number of Air Outlets	Jet Air Outlet Size	Outer Diameter	Inner Diameter	Unit Weight	
								Normal Cold	Highly Cold	Normal Cold		Highly Cold				S	T					Normal Cold	Highly Cold
010	717	545	1305	553	505	1200	385	108	86	64	64	108	150	413	90	493	445	1	Φ315	384	190	50	57
020	1007	545	1340	843	505	1200	385	108	86	64	64	108	150	413	90	783	445	1	Φ315	384	190	71	81
030	1167	625	1390	1003	585	1250	385	108	86	64	64	108	150	514	90	943	525	1	Φ400	467	230	90	121
040	1387	625	1390	1223	585	1250	385	108	86	64	64	108	150	514	90	1163	525	2	Φ400	467	230	99	129
050	1567	635	1390	1403	585	1250	385	108	86	64	64	108	150	514	90	1343	525	2	Φ400	467	230	128	158
060	1757	635	1390	1593	585	1250	385	108	86	64	94	108	150	514	90	1553	525	2	Φ400	467	230	139	180
070	1997	635	1390	1833	585	1250	385	108	86	64	94	108	150	514	90	1793	525	3	Φ400	467	230	192	222
080	2207	635	1390	2043	585	1250	385	108	86	64	94	108	150	514	90	2003	525	3	Φ400	467	230	231	271
100	2287	790	1500	2123	740	1350	385	108	86	64	108	108	155	667	90	2063	680	2	Φ500	600	275	279	309
120	2477	790	1500	2313	740	1350	385	108	86	64	108	108	155	667	90	2253	680	3	Φ500	600	275	287	311

★ Note:

1. The value 25(20) is the distance between the lifting hole and the outer edge of the unit base. It is 20 for 040 type and earlier type, and is 25 for types later than 040.
2. The above weight and size do not include the built-in control cabinet.

Compact Air Handling Units

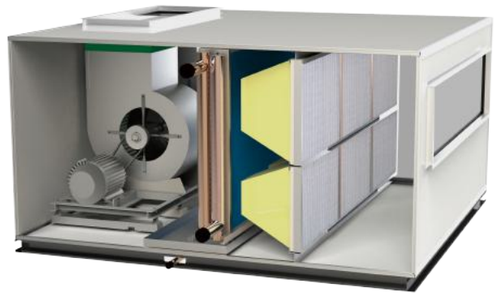
Lite Air Handling Units

Appearance

CTAD Series

Series Overview

- Frame Structure:
  - > Labyrinth-style internal and external frame box structure.
  - > Characteristics: low air leakage rate, high strength, and no thermal bridges.
- Customization and Combinations:
  - > Units are divided into 11 combination types based on functional section combinations and structure variations.
- Innovative Maintenance:
  - > Improved structure design for more convenient maintenance of filters and coils.
- Air Volume and Pressure Options:
  - > Air volume range: 2000-60000 m³/h.
  - > Multiple external pressure options available.
- Compact and Efficient Performance:
  - > Compact structure with excellent cooling and heating performance.
  - > Can be equipped with hot water coils and wet film humidifiers per customer requirements.
- Cost-Performance Advantage:
  - > Higher cost-performance advantage compared to modular air conditioning units.



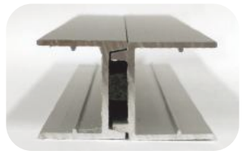
Features

① Labyrinth-type sealing structure

The overall foamed box panel is surrounded by aluminum alloy profiles with concave and convex grooves, forming a mortise-and-tenon type male and female interlocking labyrinth seal structure during installation. The connection method is secured by bolts and embedded nuts, forming a labyrinth sealed box with strong torsional resistance. The mechanical strength of the box can reach AHRI1350 CD4 level, and the air leakage rate can reach AHRI1350 CL2 level.

② No thermal bridge, not easy to rust.

The interior of the box is isolated from the outside by high-pressure foamed polyurethane and specially designed rubber seals, preventing the formation of thermal bridges. The thermal bridge factor can reach AHRI1350 CB2 level. The exterior of the box is wrapped in sheet metal within an aluminum frame, and the sheet metal corners are isolated from moist air, greatly reducing the risk of rusting.



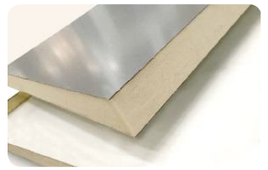
③ High Efficiency Heat Exchanger

The heat exchanger is designed with AHRI-certified software, ensuring accurate model performance and meeting diverse customer needs under various conditions.

The coil uses high-quality, RoHS-certified copper tubes and hydrophilic aluminum fins, assembled via advanced mechanical tube expansion. Each coil is air-tightness tested before delivery to ensure zero leakage and reliable operation.

④ Excellent Thermal Insulation

The cabinet panels are constructed using one-time foam molding of polyurethane, featuring a low heat conductivity coefficient and both external and internal metal plates. With a foaming density of ≥ 50 kg/m³, the panels provide excellent heat preservation, thermal insulation, shock absorption, and noise reduction. The thermal insulation performance meets the AHRI1350 CT2 standard, ensuring superior energy efficiency and operational stability.



⑤ Excellent Thermal Insulation

This product offers customized purification solutions with 21 standard models, airflow from 2000 to 60,000 CMH, and 11 configuration options. It supports two wall thicknesses (25mm and 50mm) and provides cooling, heating, filtration, and humidification functions, along with various optional accessories for flexible use.

The product is compatible with various filtration levels, including panel and bag filters, to suit different applications. Models 3, 5, and 9 can be equipped with antibacterial medium-efficiency bag filters, while model 6 features advanced electrostatic purification technology, ideal for public spaces like subways and airports, ensuring a healthy and safe environment.

Compact Air Handling Units

⑥ Optimized Fan and Motor Design for Low Noise and High Efficiency

The fan impeller and pulley undergo precise static and dynamic balancing, while the fan is rigorously tested for vibration during operation to ensure stable performance. A shock absorber is integrated into the shared base of the fan and motor, and a flexible connector between the fan outlet and the AHU body effectively isolates moving parts, minimizing vibration and ensuring smooth, quiet operation.

⑦ Corrugated Control Damper for Flexible Adjustment

Offering both manual and automatic operation, the split corrugated linked control damper provides flexible adjustment, low air resistance, and superior sealing performance. It can be controlled manually or enhanced with an optional electric controller for added convenience and precision.

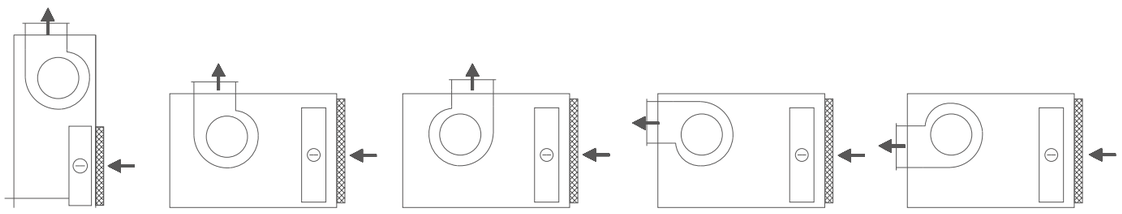
⑧ Labyrinth-type sealing structure

Achieve integrated control of the fan motor and water valve, the system is composed of low-voltage electrical appliances and thermostats from internationally renowned brands. If configured with thermostats that have communication functions, it can be connected to building automation and other third-party control systems to achieve remote and networked monitoring of the unit.

The control cabinet includes multiple protections such as power phase failure, power phase loss, and current overload, ensuring stable operation of the unit, while providing ample external interlocks (fire damper, fresh air valve, switch-type water valve control signals, etc.).

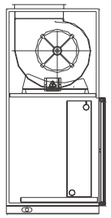
Airflow Direction and Typical Structure Types

Fan Outlet Direction



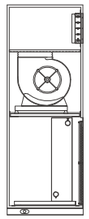
Vertical type V1

Pre-filter+Cooling coil +Fan section



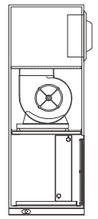
Vertical type V2

Return Grill+Cooling coil +Fan section + Air outlet Grille



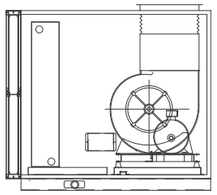
Vertical type V3

Return Grill+Cooling coil +Fan section + Jet Air Outlet



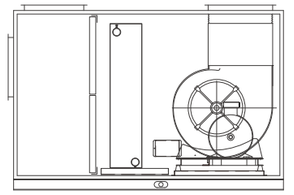
Horizontal type H1

Pre-filter+Cooling coil +Fan section



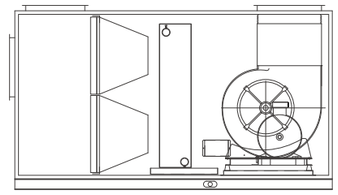
Horizontal type H2

Mix + Pre-filter +Cooling coil +Fan section



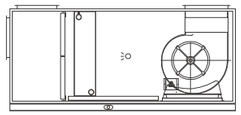
Horizontal type H3

Mix + Pre-filter + Medium filter + Cooling coil +Fan section



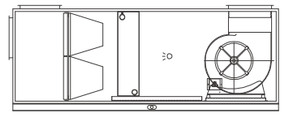
Horizontal type H4

Mix + Pre-filter + Cooling coil + Dry Steam Humidifying + Fan section



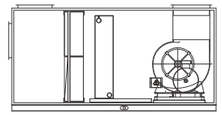
Horizontal type H5

Mix + Pre-filter + Medium Filter+ Cooling coil + Dry Steam Humidifying + Fan section



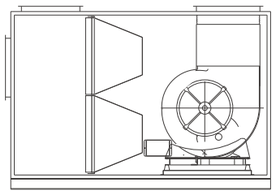
Horizontal type H6

Mix + (Pre-filter + Static Dedust+ Cooling coil + Fan section



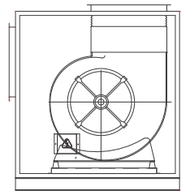
Horizontal type H7

Mix + Pre-filter + Medium Filter+ Fan section



Horizontal type H8

Air inlet + Fan section



Notes:

1. Vertical standard one (V1) and horizontal standard one (H1) are equipped with nylon mesh filters as standard, and can be optionally replaced with primary panel filters;
2. A wet film humidifier can be optionally installed after the surface cooler coil;
3. Horizontal units can be optionally equipped with hot water coils, steam coils, and water baffles (except for horizontal standard nine and horizontal standard ten);
4. The primary filter is equipped with a G3 panel as standard, and the medium efficiency filter is equipped with an M5 bag filter as standard.

Compact Air Handling Units

Base Units Technical Specifications

Standarding Condition

Base Model	Airflow	Standard Capacity (4 Rows)						Hight Capacity (6 Rows)					
		Cooling Capacity	Heating Capacity	Water Flow	Water Resistance	Chilled Water Pipe	Condensate Water Pipe	Cooling Capacity	Heating Capacity	Water Flow	Water Resistance	Chilled Water Pipe	Condensate Water Pipe
CTAD	m^3/h	kW	kW	l/s	kPa	DN	DN	kW	kW	l/s	kPa	DN	DN
020	2000	11.0	22.8	0.5	19.3	32	25	14.8	27.6	0.7	78.6	32	25
030	3000	17.2	35.1	0.8	46.0	32	25	22.7	41.9	1.1	28.8	32	25
040	4000	23.4	47.1	1.1	76.6	32	25	29.6	54.6	1.4	45.6	32	25
050	5000	28.2	57.0	1.3	28.2	32	25	34.5	64.5	1.6	56.1	32	25
060	6000	35.1	69.1	1.7	50.6	32(40)	25	42.4	78.2	2.0	63.3	32(40)	25
070	7000	41.0	80.7	2.0	48.7	40(50)	25	48.8	92.5	2.3	31.1	40(50)	25
080	8000	48.2	93.7	2.3	70.1	40(50)	25	57.2	106.7	2.7	44.6	40(50)	25
100	10000	59.7	115.7	2.8	71.6	40(50)	25	74.2	138.1	3.5	45.4	50	25
120	12000	69.8	136.8	3.3	28.4	40(50)	25	89.9	165.3	4.3	78.3	50	25
150	15000	90.4	172.7	4.3	46.0	50(65)	32	115.0	207.6	5.5	22.6	50(65)	32
180	18000	107.0	210.8	5.1	66.0	50(65)	32	136.4	247.2	6.5	32.5	65	32
210	21000	126.6	247.3	6.0	79.3	65	32	157.4	289.4	7.5	38.9	65	32
240	24000	148.8	285.6	7.1	27.3	65	32	181.9	332.2	8.7	57.8	65	32
270	27000	167.5	321.3	8.0	30.0	65	32	204.7	372.0	9.8	61.4	65	32
300	30000	186.1	357.0	8.9	29.2	65	32	226.1	413.4	10.8	58.4	65	32
330	33000	204.7	392.7	9.8	37.9	80	32	253.0	456.8	12.1	73.6	80	32
350	35000	220.1	416.5	10.5	44.2	80	32	271.3	486.9	12.9	78.9	80	32
400	40000	230.8	451.0	11.0	78.2	80	32	299.8	546.1	14.3	55.4	80	32
450	45000	248.1	484.8	11.8	71.8	80	32	341.1	617.2	16.3	58.7	80	32
500	50000	275.6	538.5	13.1	77.9	80	32	379.0	685.9	18.1	57.7	80	32
600	60000	362.0	671.3	17.2	73.5	80	32	452.7	708.0	21.6	52.5	80	32

Notes:

1. Cooling: Inlet air dry-bulb temperature 27°C, wet-bulb temperature 19.5°C, inlet/outlet water temperature 7°C/12°C; Heating: Inlet air dry-bulb temperature 15°C, hot water inlet temperature 60°C, water flow rate is the same as chilled water flow rate;
2. When the unit is in actual use, if the fresh air volume is increased, the cooling capacity of the unit will change. For details, please consult TICA;
3. For parameters corresponding to other coil configurations and inlet air conditions, please refer to the product selection software;
4. The header pipe diameters of some vertical and horizontal units are different. The values outside the brackets are for horizontal units, and the values inside the brackets are for vertical units.

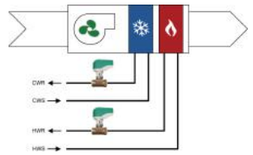
Fresh Air Condition

Base Model	Airflow	Standard Capacity (4 Rows)						Hight Capacity (6 Rows)					
		Cooling Capacity	Heating Capacity	Water Flow	Water Resistance	Chilled Water Pipe	Condensate Water Pipe	Cooling Capacity	Heating Capacity	Water Flow	Water Resistance	Chilled Water Pipe	Condensate Water Pipe
CTAD	m^3/h	kW	kW	l/s	kPa	DN	DN	kW	kW	l/s	kPa	DN	DN
020	2000	27.4	30.7	1.3	39.9	32(40)	25	33.7	34.2	1.6	77.4	32(40)	25
030	3000	40.5	44.3	1.9	30.3	32(40)	25	47.9	48.9	2.3	34.6	32(40)	25
040	4000	54.7	58.8	2.6	52.1	40(50)	25	63.8	67.0	3.0	54.8	40(50)	25
050	5000	68.4	73.8	3.3	60.2	40(50)	25	79.8	83.9	3.8	63.8	50	25
060	6000	81.0	85.0	3.9	29.4	50	25	97.9	100.5	4.7	73.5	50	25
070	7000	89.6	95.0	4.3	44.5	50(65)	25	115.4	116.7	5.5	22.1	50(65)	25
080	8000	101.7	108.6	4.9	64.1	50(65)	25	127.7	134.5	6.1	31.7	65	25
100	10000	132.8	154.9	7.0	69.0	65	25	162.1	167.3	7.7	33.6	65	25
120	12000	157.9	175.3	7.5	29.1	65	25	193.6	196.5	9.2	57.1	65	25
150	15000	194.7	221.3	9.3	37.8	65(80)	32	252.6	252.3	12.0	60.4	80	32
180	18000	230.5	257.6	11.0	52.9	80	32	293.6	296.1	13.1	71.5	80	32
210	21000	276.3	303.6	13.2	63.6	80	32	331.5	336.1	13.9	79.5	80	32
240	24000	319.9	348.8	15.2	64.6	80	32	*366.2	*380.6	*12.5	74.5	80	32
270	27000	359.9	389.7	17.1	68.9	80	32	*409.6	*428.2	*13.9	80.0	80	32
300	30000	384.1	420.5	18.3	71.3	80	32	*455.2	*473.6	*15.5	79.4	80	32
330	33000	445.7	482.0	21.2	79.5	80	32	*503.6	*523.3	*17.1	75.8	80	32
350	35000	454.3	490.5	21.6	78.3	80	32	*552.5	*578.3	*15.5	78.8	80	32
400	40000	477.1	525.2	22.7	76.3	80	32	*589.3	*622.5	*18.7	77.1	80	32
450	45000	536.7	594.2	25.6	78.6	80	32	*647.2	*679.6	*19.3	79.2	80	32
500	50000	605.1	663.9	28.8	56.1	80	32	*727.9	*774.6	*21.7	68.5	80	32
600	60000	820.9	828.5	39.0	59.7	80	32	*990.2	*883.2	*46.8	69.7	80	32

Notes:

1. Cooling: Inlet air dry-bulb temperature 35°C, wet-bulb temperature 28°C, inlet/outlet water temperature 7°C/12°C; Heating: Inlet air dry-bulb temperature 7°C, hot water inlet temperature 60°C, water flow rate same as cooling water flow rate;
2. * indicates that the inlet/outlet water temperature difference is greater than 5°C to control the refrigerant water pipe pressure drop;
3. For parameters corresponding to other coil configurations and inlet air conditions, please refer to the product selection software;
4. The header pipe diameter configuration of some vertical and horizontal units is different. The configuration outside the parentheses is for horizontal units, and the configuration inside the parentheses is for vertical units.

Extra Componets Specifications



Standard Condition(Extra Heating Coil Specs for a 4 Pipes AHU)

Base Model	Airflow	1 Row				2 Rows			
		Heating Capacity	Water Flow	Water Resistance	Water Pipe Size	Heating Capacity	Water Flow	Water Resistance	Water Pipe Size
CTAD	m^3/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
020	2000	6.7	0.2	1.0	32	13.6	0.3	5.3	32
030	3000	10.2	0.3	2.0	32	20.0	0.5	10.6	32
040	4000	13.8	0.3	3.0	32	27.2	0.6	16.0	32
050	5000	18.5	0.4	3.4	32	35.8	0.9	17.7	32
060	6000	23.2	0.6	5.5	32	43.7	1.0	28.0	32
070	7000	27.6	0.7	5.5	32	50.9	1.2	28.0	32
080	8000	32.5	0.8	7.9	32	56.8	1.4	40.4	32
100	10000	42.0	1.0	8.1	32	77.7	1.9	41.3	32
120	12000	48.7	1.2	13.8	32	88.8	2.1	8.4	32
150	15000	61.7	1.5	22.6	40	111.0	2.7	13.6	40
180	18000	75.2	1.8	31.0	40	135.3	3.2	18.6	40
210	21000	88.9	2.1	37.2	40	157.8	3.8	22.5	40
240	24000	103.1	2.5	54.1	40	174.7	4.2	32.0	40
270	27000	116.0	2.8	57.6	40	196.5	4.7	34.1	40
300	30000	128.8	3.1	58.4	40	216.5	5.2	35.3	40
330	33000	141.7	3.4	61.2	40	240.1	5.7	37.5	40
350	35000	150.3	3.6	76.4	40	254.7	6.1	50.1	40
400	40000	167.0	4.0	20.4	40	281.5	6.7	12.5	40
450	45000	187.9	4.5	21.6	40	322.1	7.7	10.9	40
500	50000	208.8	5.0	21.6	40	357.9	8.5	13.0	40
600	60000	258.0	6.2	48.2	40	427.1	10.2	23.0	40

Fresh Air Condition(Extra Heating Coil Specs for a 4 Pipes AHU)

Base Model	Airflow	1 Row				2 Rows			
		Heating Capacity	Water Flow	Water Resistance	Water Pipe Size	Heating Capacity	Water Flow	Water Resistance	Water Pipe Size
CTAD	m^3/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
020	2000	9.0	0.2	1.4	32	16.6	0.4	7.5	32
030	3000	13.5	0.3	2.8	32	25.7	0.6	14.4	32
040	4000	18.6	0.4	4.2	32	33.2	0.8	21.9	32
050	5000	23.2	0.6	4.6	32	43.6	1.0	24.2	32
060	6000	28.7	0.7	7.6	32	50.6	1.2	38.3	32
070	7000	33.9	0.8	7.6	32	63.0	1.5	38.3	32
080	8000	39.9	1.0	10.7	32	73.1	1.7	54.5	32
100	10000	51.6	1.2	11.2	32	92.9	2.2	56.4	32
120	12000	59.0	1.4	19.2	32	106.2	2.5	11.4	32
150	15000	75.9	1.8	31.3	40	134.9	3.2	18.7	40
180	18000	92.3	2.2	42.9	40	161.9	3.9	25.6	40
210	21000	109.2	2.6	50.5	40	182.9	4.4	30.1	40
240	24000	124.8	3.0	74.8	40	212.4	5.1	44.0	40
270	27000	140.4	3.4	78.1	40	237.1	5.7	46.9	40
300	30000	156.0	3.7	79.2	40	261.3	6.2	47.2	40
330	33000	173.9	4.2	76.4	40	292.1	7.0	50.2	40
350	35000	184.4	4.4	79.9	40	309.8	7.4	67.0	40
400	40000	202.3	4.8	29.3	40	342.8	8.2	17.4	40
450	45000	227.6	5.4	31.2	40	385.7	9.2	15.4	40
500	50000	256.1	6.1	30.5	40	423.6	10.1	18.1	40
600	60000	312.8	7.5	67.2	40	508.0	12.1	33.5	40

Notes:

Heating (Return Air Mode): Inlet dry-bulb temperature 15°C, hot water inlet temperature 60°C, outlet temperature 50°C;

Heating (Fresh Air Mode): Inlet dry-bulb temperature 7°C, hot water inlet temperature 60°C, outlet temperature 50°C.

Wet film features and specifications

A wet film humidifier utilizes a hydrophilic material that evenly distributes absorbed water across its surface, creating a water vaporization layer. As air flows over the material's surface, it evaporates and absorbs the water from this layer, humidifying the air. This principle is used to design evaporative humidifiers. The thickness of the wet film is selected based on the desired humidification capacity, with the water supply being three times the humidification rate.

Operating conditions

Air Temperature Humidifier:5-80℃；≤90%RH

Air Velocity：≤3.75m/s

Supply water quality: Tap water, purified water

Water Condition:0.05-0.4MPa，5-40℃

Water supply = 2-3 * moisture quantity, external water supply interface size: DN 15 G1/2

Power Supply AC220V/50HZ

Base Model	Airflow (m^3/h)	Wet film face dimension		Max humidifying Volume(kg/h)				Weight(kg)			
		Height,mm	Width,mm	50mm	100mm	150mm	200mm	50mm	100mm	150mm	200mm
020	2000	452	650	5	11	14	16	3.5	5.9	8.2	10.6
030	3000	502	800	8	16	20	22	4.8	8.0	11.2	14.5
040	4000	544	900	9	19	24	26	5.9	9.8	13.7	17.6
050	5000	628	930	11	23	29	32	6.9	11.6	16.2	20.9
060	6000	628	1090	13	27	34	37	8.0	13.4	18.9	24.4
070	7000	751	1090	16	32	40	45	9.4	15.9	22.5	29.0
080	8000	751	1230	18	36	46	50	10.5	17.9	25.3	32.7
100	10000	904	1230	22	44	55	61	11.9	20.6	28.8	37.2
120	12000	904	1490	26	53	67	74	13.1	23.5	31.9	41.3
150	15000	954	1780	33	67	84	93	15.0	27.7	36.6	47.4
180	18000	1005	1980	39	79	99	109	16.5	31.2	40.5	52.4
210	21000	1107	2130	47	94	117	129	18.5	31.9	45.4	58.8
240	24000	1107	2440	54	108	135	148	20.3	35.1	49.9	64.7
270	27000	1208	2490	60	120	150	165	21.9	38.0	54.0	70.0
300	30000	1310	2490	65	130	163	179	23.3	40.3	57.4	74.4
330	33000	1361	2690	73	146	183	201	25.4	44.0	62.7	81.3
350	35000	1361	2850	77	155	193	213	26.6	46.1	65.6	85.1
400	40000	1501	2870	86	172	215	236	27.2	47.2	67.2	87.2
450	45000	1691	2870	97	194	242	266	27.2	47.2	67.2	87.2
500	50000	1858	2920	108	217	271	298	27.2	47.2	67.2	87.2
600	60000	2239	2870	128	257	321	353	27.2	47.2	67.2	87.2

Notes:

When the unit is equipped with a wet film humidifier, the internal resistance of the unit should be increased accordingly: 50mm-20Pa; 100mm-30Pa; 150mm-45Pa; 200mm-60Pa.

Modular Air Handling Units

With over 15 years of technological advancements, Condor has gained extensive project experience and valuable insights from customers and engineers. Our innovative micro-module design introduces a fresh approach to cabinet design, greatly enhancing structural flexibility.

As a result, Condor offers superior energy efficiency and reliability, perfectly tailored to meet the specialized needs of various professional scenarios.

Introduction

Seies A - CTAC

- Casing thickness: sandwich insulation panel 25mm
- Installation type: horizontal / vertical / ceiling
- Air flow range: 1,000 to 60,000m^3/h

Higher flexibility and economical design

Commercial building application

Convenient installation

Seies B - CTAC

- Casing thickness: sandwich insulation panel 50mm
- Installation type: horizontal / vertical /ceiling
- Air flow range: 1,000 to 360,000m^3/h

Higher-level Casing performance

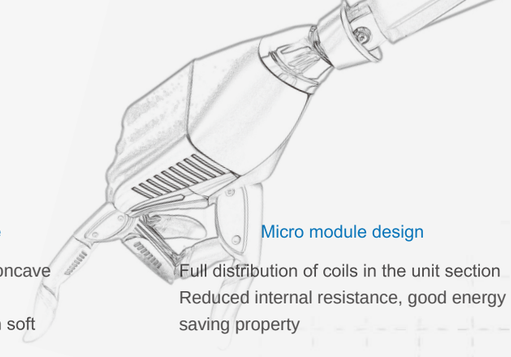
Critical industrial application

Ultra-strong installation adaptability

Professional Design

Our modular air handling unit features a patented casing structure and meticulous design, delivering exceptional performance in key areas such as mechanical strength, air tightness, thermal insulation, and cold bridge prevention.

Built to meet the EN1886 standard for casing performance, it has also earned certification from recognized industry authorities, reflecting its superior quality and reliability.

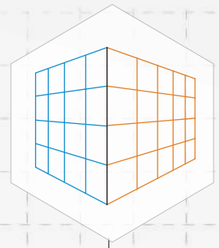


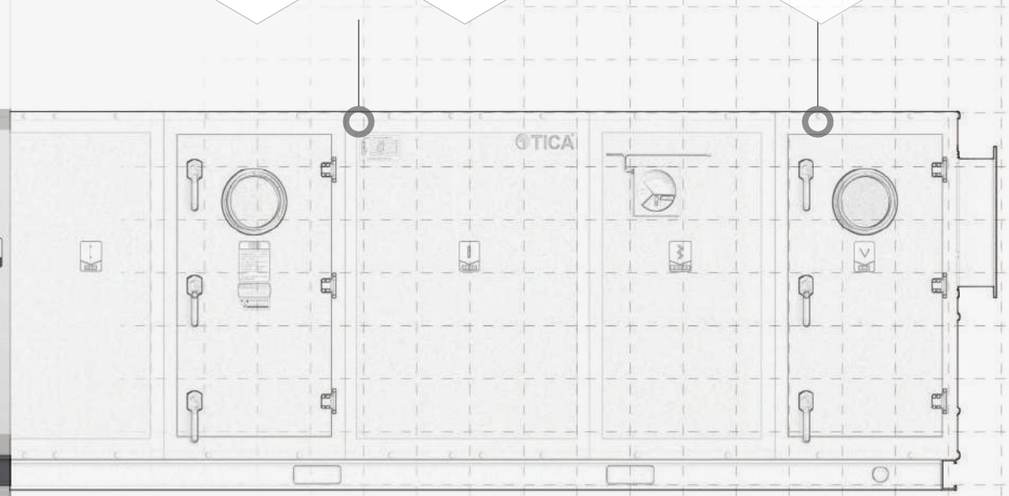
Self-developed casing structure

A labyrinth sealing structure, with the concave and convex modules interlocked
Aluminum-plastic composite profile with soft and hard co-extrusion sealing strip

Micro module design

Full distribution of coils in the unit section
Reduced internal resistance, good energy saving property



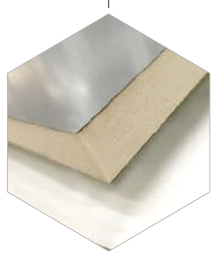


Flat and clean inside

Casing inside is flatly and seamlessly spliced
No corners with possible dust deposition

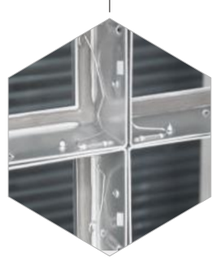
High-efficiency heat exchanger

Obtained AHRI certification for heat exchanger and RoHS certification for copper pipe
High-efficiency heat exchange, high reliability



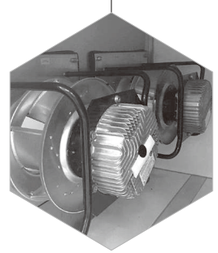
Sandwich insulation panel

50kg/m^3 high-density polyurethane
Lower heat loss, high strength without deformation



Highly-sealed filter installation frame

Highest level of EN1886 airtightness
Supply clean air after filtering



High-efficiency and energy saving fan

EC fan with higher energy efficiency
Cleaner without volute and belt dust

Access door

Full-size door with large space, more convenient repair
Seamless foaming of door leaf, with good airtightness
Pressure relief design for door handle, ensuring operation safety

Core Components

Fan section

Intelligent selection of optimal model, speed, and motor

- The fan impeller and belt pulley are corrected by static and dynamic balance before delivery, and operate stably.
- A damping device is equipped to greatly reduce the operating noise.
- The impeller and frame are made of high-strength alloy steel plate, with high structural strength.
- A variety of inverter fans are available.

Centrifugal fan

· Double inlet forward/backward
· Belt-driven, with good aerodynamic performance
· Variable speed motor is optional

Plug fan

· Direct-driven, easy to clean, small vibration, and low noise
· Variable speed motor is optional

Filter section

- Micro modular design of imperial units, with full distribution of filters in the unit height direction
- Uniform air flow, reducing the average air speed of the section and improving the filtration efficiency
- Airtight installation and overhaul frame, ensuring low leakage rate and convenient overhaul

Plate filter

Filtration efficiency:
MERV7-MERV9

Bag filter

Filtration efficiency:
MERV7-MERV13

HEPA filter

Filtration efficiency:
E10-E12/H13-H14

Coil section

- All coils will undergo a pressure test before delivery to ensure worry-free operation.
- Zigzag-shaped circuit can effectively prevent the problem of freezing cracks due to uncompleted drainage in winter.
- All fins are made of hydrophilic aluminum foil to improve heat exchange efficiency and anti-oxidation effect.
- The drain pan is V-shaped with an inclination angle of over 5° to ensure rapid drainage.
- With a variety of circuit forms and AHRI-certified professional selection software, the water resistance can be flexibly optimized.

Cold/hot water coil

· High-quality copper pipes and hydrophilic aluminum fins
· Adoption of integrated mechanical expansion pipe

Steam coil

· Excellent cavitation resistance and water hammer resistance
· Optional aluminum fins/steel fins

Anti-bacterial filter section

The requirement of healthy ventilation in public places can be met by the optional antibacterial filter section:

- It is recommended to choose a media filter with silver ions to prevent secondary pollution from bacterial reproduction.
- A high-voltage electrostatic sterilization filter is equipped to capture particulate matter and kill microorganisms.
- Photocatalyst degrades toxic and harmful gases in the air, effectively killing a variety of bacteria.

Anti-bacterial filter

· Meltblown PP plus chemical ion coating

Plate type electrostatic

· Microorganisms are killed through high pressure ionization and adsorption.

Core Components

Heat recovery

- Modern air conditioning increasingly uses heat recovery systems.
- It not only directly saves operating costs, but also indirectly plays a role in ecological protection.

Rotary type heat recovery

Heat pipe type heat recovery

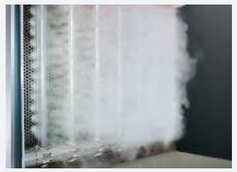
Humidification section

Humidification is an essential function in order to provide healthy air with the right humidity.

The following performance should be considered when choosing a humidifier:

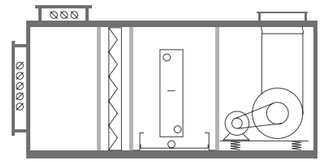
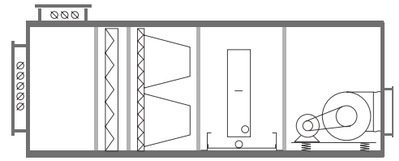
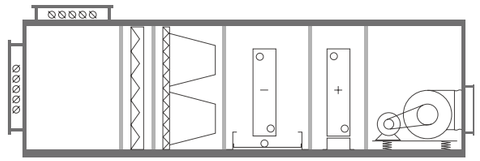
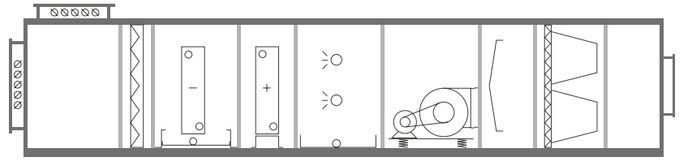
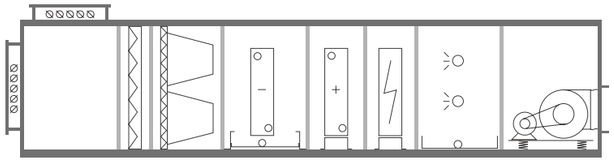
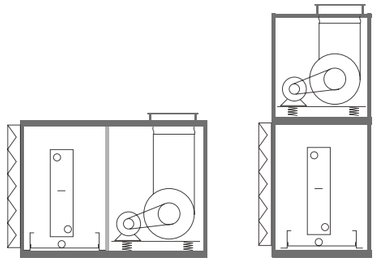
- Saturated efficiency
- Humidification cleanliness
- Control precision
- Absorption distance

Wet film humidification



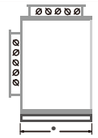
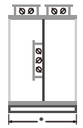
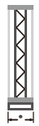
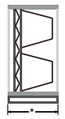
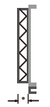
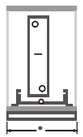
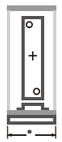
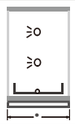
Dry steam humidification

Basic Configuration

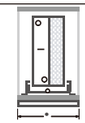
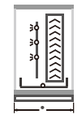
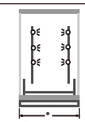
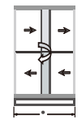
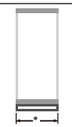
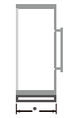
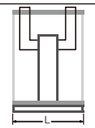
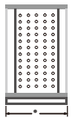
System type	Basic features	Section configuration
Commercial unit	· Temperature control · Applicable to commercial applications	 Mixing section + plate filter section + cooling coil section (/heating section) + fan section  Mixing section + plate filter section + bag filter section + cooling coil section + fan section
	· Temperature control · Apply to 4-pipe commercial applications	 Mixing section + plate filter section + bag filter section + cooling coil section + heating section + fan section
Constant temperature and humidity unit	· Temperature and humidity control · Applicable to process projects	 Mixing section + plate filter section + cooling coil section + heating section + humidification section + fan section + flow equalization section + bag filter section + air supply section
Constant temperature and humidity with heat recovery unit	· Temperature and humidity control as well as heat recovery · Applicable to process projects	 Mixing section + plate filter section + bag filter section + DX cooling coil + heat recovery section + electric heating section + humidification section + fan section
Full fresh air unit	· Focus on fresh air humidity treatment · Applicable to air-conditioning systems in comfortable projects	 External filter section + cooling coil section + fan section

Functional Sections Specifications

(unit in mm)

Section's Name	Symbol	Specifications (for reference only)
Mixing Section		Model L 0607-1117 600 1217-2126 800 2227-2534 1000 2834-4565 1200
Fresh Air and Exhaust Air Section		Model L 0607-1925 1200 2025-2940 1500 3141-4565 1800
Plate Filter Section		L = 100mm Plate filter can be Pre-filter or Secondary filter, can be install inside the Mixing Section or as External Filter Section.
Bag Filter Section or Rigid Filter Section		Bag Filter L = 400 Rigid Filter L = 400
External Filter Section		L = 100 Install at outside of unit and will not take up space inside unit.
Fan Section		L = 700 - 3500 Details refer to Sections Length Table.
Cooling Coil Section		Model L(1R-4R) L(5R-6R) L(8R-12R) 0607-2940 600 700 900 3141-4565 1000 1000 1200
Heating Coil Section		Model L(1R-2R) 0607-2940 300 3141-4565 600 For model smaller than 3141, if heating coil is located after cooling coil which is not larger than 8 rows, the heating and cooling coil can be located in L the same drain pan. Total length is 900mm.
Electric Heater Section		T L < 4 300 ≥ 4 700 T = Electric Power (W) / Air Flow (CMH)
Steam Humidifier Section		L = 600 If it is located after Fan, L = 900.

(unit in mm)

Section's Name	Symbol	Specifications (for reference only)
Wet Film Humidifier Section		If it is installed next to Cooling Coil Section, does not need individual section length; if located in an independent section, L = 600
High Pressure Spray Humidifier Section		L = 900 (Need moisture eliminator)
Air Washer Humidifier Section		Double rows L=2100
Heat Recovery Section		L must be determined by the actual Heat Recovery device selected.
Diffusion Section		L = 600
Access Door Section		L = 600 Access Door can be added before Filter Section, Cooling Coil Section, Heating Coil Section, Sound Attenuator Section, etc to ease maintenance works.
Supply Air Section		Model L 0607-1117 600 1217-2126 800 2227-2534 1000 2834-4565 1200
De-Humidifier Section		L must be determined by the actual De-Humidifier used.
Sound Attenuator Section		L = 500,800,1100 for option
	Gas Heater Section	L = 3000
	Self-Cleaning High Efficiency Filter Section	L = 1800
	Moisture Eliminator	Share length with cooling coil section
	Evaporative Cooling Section	L = 900

Customized service

As a professional clean processing system integrator and service provider, we provide air treatment design and product customization services that fit the users' business format for various extreme industrial environments and comfortable living environments, fully covering common needs. We are committed to providing users with the optimal clean environment solutions.

Personalized customization and quick model selection

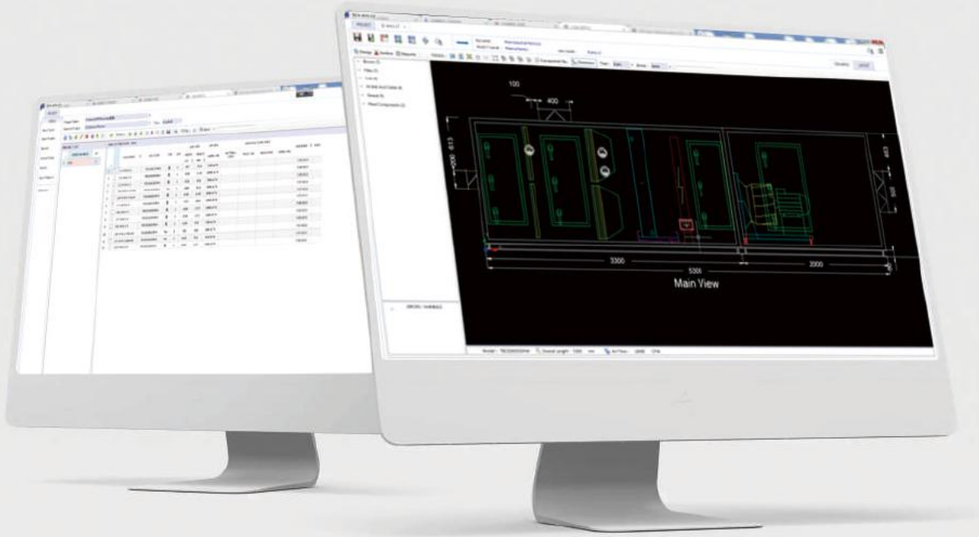
Specialized operating system, automatic association design, quick and accurate model selection, perfect project management, and quick feedback on customer needs.

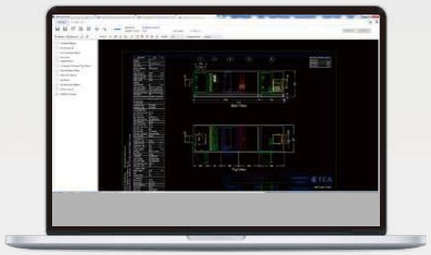
Model selection functions

A variety of standardized modules, directly providing models for selection;
A variety of function section configurations, meeting requirements for process design;
A large-capacity model database, coping with various scenario requirements.

Professional model selection software

The heat exchanger model selection software passes AHRI certification.
The whole model selection software passes.
Eurovent certification.





Output of professional model selection reports

The model selection results can be output through a complete set of reports, including the technical parameter detail list of each function section of the unit, the coil model selection detail list, enthalpy/humidity chart, operating conditions, fan curve, weight report and unit dimension diagram.

Air Flow Chart

Unit in m^3/h

CTAC/CTBC		Coil Face Velocity(m/s)					
		2.00	2.25	2.50	2.80	3.00	3.50
06	07	1567	1762	1958	2193	2351	2742
06	08	1790	2014	2238	2506	2685	3133
06	09	2207	2783	2758	3089	3311	3862
06	10	2527	2843	3158	3537	3791	4422
07	10	2888	3249	3610	4043	4332	5054
07	11	3253	3660	4067	4555	4880	5693
08	10	3610	4061	4512	5053	5415	6318
08	11	4067	4575	5083	5964	6101	7117
08	12	4524	5089	5655	6334	6786	7917
08	13	4981	5604	6226	6974	7472	8717
08	14	5438	6118	6798	7614	8157	9517
10	12	5881	6616	7351	8234	8822	10292
10	13	6476	7285	8094	9066	9714	11333
10	15	7664	8622	9580	10730	11496	13412
10	16	8259	9291	10323	11562	12389	14453
11	15	8843	9949	11054	12381	13265	15475
11	16	9529	10720	11911	13341	14294	16676
11	17	10215	11492	12769	14301	15323	17876
12	17	10896	12258	13620	15254	16344	19068
12	18	11628	13081	14534	16279	17442	20349
13	17	12258	13790	15322	17161	18387	21452
13	18	13081	14716	16351	18313	19622	22892
13	19	13904	15642	17380	19465	20856	24332
14	19	14676	16511	18345	20547	22014	25683
14	20	15545	17488	19431	21763	23318	27204
15	19	16221	18249	20277	22710	24332	28387
15	21	18141	20409	22677	25398	27212	31747
16	21	19005	21381	23757	26607	28508	33259
16	22	20011	22513	25014	28016	30017	35019
16	24	22023	24776	27529	30832	33035	38540
19	22	24559	27629	30699	34383	36839	42978
19	23	25794	29018	32242	36111	38691	45140
19	25	28263	31795	35328	39568	42395	49460
20	25	29309	32973	36637	41033	43964	51291
20	26	30589	34413	38237	42825	45884	53531
21	26	32774	36871	40968	45884	49161	57355
22	27	33866	38099	42333	47412	50799	59266
23	26	36052	40558	45065	50473	54078	63091
22	30	39536	44478	49420	55351	59304	69188
25	28	42621	47949	53276	59670	63932	74587
25	31	47559	53504	59449	66582	71339	83228
25	34	52497	59059	62621	73495	78746	91870
28	34	59788	67261	74735	83703	89682	104629
28	38	67286	75697	84107	94200	100929	117751
29	40	72767	81863	90959	101874	109151	127342
31	41	79292	89204	99115	111009	118938	138761
32	45	89467	100650	111833	125253	134201	156567
35	46	101523	114213	126904	142432	152285	177665
37	50	117371	132042	146713	164319	176057	205399
38	55	136921	154037	171152	191690	205382	239612
43	58	165054	185685	206317	231075	247581	
45	65	191575	215522	239469	268205	280000	

Cooling Coil Performance Chart

CTAC/CTBC		Air Flow m^3/h	Fresh Air Condition						Return Air Condition					
			4 Rows		6 Rows		8 Rows		4 Rows		6 Rows		8 Rows	
			SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW
06	07	1958	9	21	12	29	13	31	8	9	9	12	10	15
06	08	2238	11	24	14	33	15	36	9	11	10	14	11	17
06	09	2758	13	29	17	41	18	44	11	13	12	17	14	21
06	10	3158	15	33	19	46	21	50	12	15	14	19	16	24
07	10	3610	17	38	22	53	24	58	14	17	16	22	18	28
07	11	4067	19	43	25	60	27	65	16	20	18	25	21	31
08	10	4512	21	47	28	66	30	72	18	22	20	27	23	35
08	11	5083	24	53	31	75	34	81	20	24	22	31	26	39
08	12	5655	27	59	35	83	37	90	22	27	25	34	29	43
08	13	6226	29	66	38	92	41	99	24	30	27	38	31	48
08	14	6798	32	72	42	100	45	108	27	33	30	41	34	52
10	12	7351	35	77	45	108	49	117	29	35	32	45	37	56
10	13	8094	38	85	50	119	53	129	32	39	36	49	41	62
10	15	9580	45	101	59	141	63	153	37	46	42	58	48	73
10	16	10323	49	109	63	152	68	165	40	50	45	63	52	79
11	15	11054	52	116	68	163	73	176	43	53	49	67	56	85
11	16	11911	56	125	73	175	79	190	46	57	52	72	60	91
11	17	12769	60	134	78	188	84	204	50	61	56	78	54	98
12	17	13620	64	143	84	200	90	217	53	65	60	83	69	104
12	18	14534	69	153	89	214	96	232	57	70	64	88	73	111
13	17	15322	72	161	94	225	101	244	60	74	67	93	77	118
13	18	16351	77	172	100	241	108	261	64	79	72	99	82	125
13	19	17380	82	183	107	256	115	277	68	83	76	106	88	133
14	19	18345	87	193	113	270	121	293	72	88	81	111	93	141
14	20	19431	92	204	119	286	128	310	76	93	85	118	98	149
15	19	20277	96	213	124	298	134	324	79	97	89	123	102	156
15	21	22677	107	239	139	334	150	362	89	109	100	138	114	174
16	21	23757	112	250	146	350	157	379	93	114	104	144	120	182
16	22	25014	118	263	153	368	165	399	98	120	110	152	126	192
16	24	27529	130	290	169	405	182	439	107	132	121	167	139	211
19	22	30699	145	323	188	452	203	490	120	147	135	186	155	235
19	23	32242	152	339	198	474	213	514	126	155	142	196	163	247
19	25	35328	167	372	217	520	233	564	138	170	155	215	178	271
20	25	36637	173	385	225	539	242	585	143	176	161	222	185	281
20	26	38237	180	402	234	563	252	610	149	184	168	232	193	293
21	26	40968	193	431	251	603	270	654	160	197	180	249	207	314
22	27	42333	199	445	259	623	279	676	165	204	186	257	214	324
23	26	45065	212	474	276	663	297	719	176	216	198	274	227	346
22	30	49420	233	520	303	727	326	789	193	238	217	300	250	379
25	28	53276	251	560	327	784	352	850	208	256	234	324	269	409
25	31	59449	280	625	365	875	392	948	232	285	261	361	300	456
25	34	62621	309	690	402	965	433	1047	256	315	288	398	331	503
28	34	74735	352	786	458	1100	493	1192	292	359	328	454	377	573
28	38	84107	397	885	516	1237	555	1342	328	404	370	511	424	645
29	40	90959	429	957	558	1338	600	1451	355	437	400	552	459	698
31	41	99115	467	1043	608	1458	654	1581	387	476	435	602	500	760
32	45	111833	527	1177	686	1645	738	1784	436	537	491	679	564	858
35	46	126904	598	1335	778	1867	838	2025	495	609	558	771	640	973
37	50	146713	692	1543	900	2158	968	2341	573	705	645	891	740	1125
38	55	171152	807	1801	1050	2518	1130	2731	668	822	752	1039	863	1313
43	58	206317	973	2171	1265	3035	1362	3292	805	991	906	1253	1040	1582
45	65	239469	1129	2519	1468	3523	1581	3821	935	1150	1052	1454	1207	1837

Notes:

Note：
1.Fresh Air Condition: entering air temperature 35°CDB/28°CWB.
2.Return Air Condition: entering air temperature 27°C DB/19.5°CWB.
3.Chilled water entering/leaving temperature, 7°C/12°C.Coil face velocity is 2.5m/s.
4.Manufacturer reserves the rights to change the data without prior notice.
5.Abbreviations:SC - Sensible Cooling Capacity, TC - Total Cooling Capacity.

Heating Coil Performance Chart

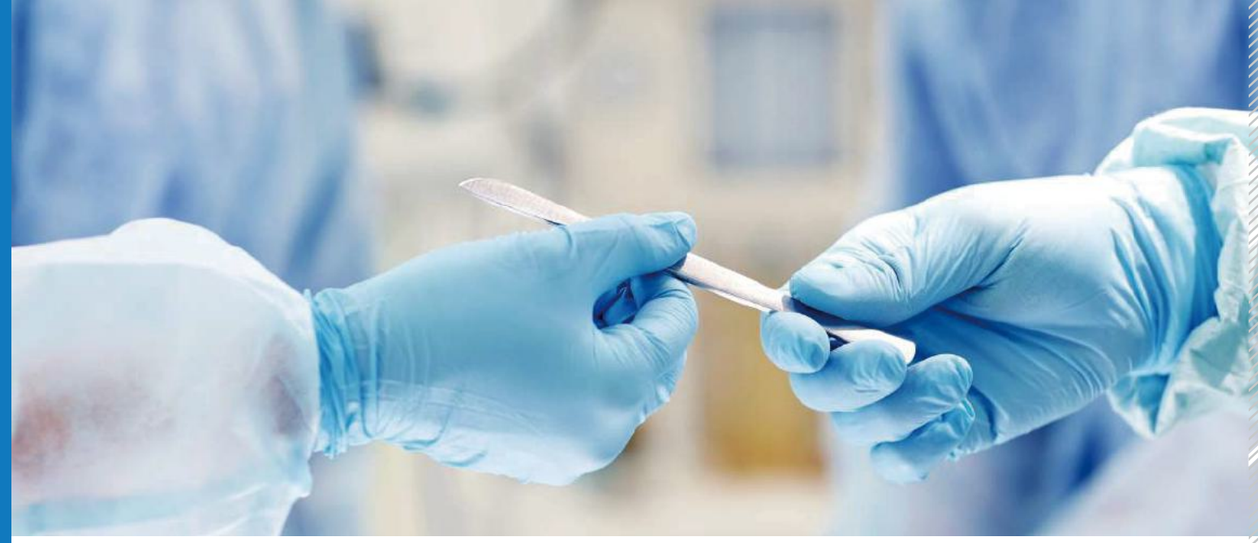
CTAC/CTBC		Air Flow m^3/h	Fresh Air Condition				Return Air Condition			
			1Rows	2Rows	3Rows	4Rows	1Rows	2Rows	3Rows	4Rows
			TH kW	TH kW	TH kW	TH kW	TH kW	TH kW	TH kW	TH kW
06	07	1958	12	18	23	26	9	14	19	21
06	08	2238	14	20	26	30	10	16	21	24
06	09	2758	17	25	32	37	12	20	26	30
06	10	3158	20	29	37	42	14	23	30	34
07	10	3610	23	33	42	48	16	26	34	39
07	11	4067	26	37	47	54	18	29	39	44
08	10	4512	28	41	52	60	20	32	43	49
08	11	5083	32	46	59	68	23	36	49	55
08	12	5655	36	52	65	75	25	41	54	62
08	13	6226	39	57	72	83	28	45	59	68
08	14	6798	43	62	79	91	30	49	65	74
10	12	7351	46	68	85	98	33	53	70	80
10	13	8094	51	74	94	108	36	58	77	88
10	15	9580	60	87	111	128	42	69	91	105
10	16	10323	65	94	120	138	46	74	99	113
11	15	11054	70	101	128	147	49	79	106	121
11	16	11911	75	109	138	159	53	85	114	130
11	17	12769	81	116	148	170	57	91	122	139
12	17	13620	86	124	158	182	60	98	130	149
12	18	14534	92	133	168	194	64	104	139	159
13	17	15322	97	140	177	204	68	110	146	167
13	18	16351	103	149	189	218	72	117	156	178
13	19	17380	110	158	201	232	77	124	166	190
14	19	18345	116	167	212	245	81	131	175	200
14	20	19431	123	177	225	259	86	139	186	212
15	19	20277	128	185	235	270	90	145	194	221
15	21	22677	143	207	263	302	100	162	217	247
16	21	23757	150	217	275	317	105	170	227	259
16	22	25014	158	228	290	334	111	179	239	273
16	24	27529	174	251	319	367	122	197	263	300
19	22	30699	194	280	355	409	136	220	293	335
19	23	32242	204	294	373	430	143	231	308	352
19	25	35328	223	322	409	471	157	253	337	386
20	25	36637	231	334	424	488	162	262	350	400
20	26	38237	241	349	443	510	169	274	365	417
21	26	40968	259	374	474	546	182	293	391	447
22	27	42333	268	389	497	562	184	303	399	454
23	26	45065	284	411	522	601	200	323	430	492
22	30	49420	313	454	581	656	215	353	466	530
25	28	53276	336	486	617	710	236	382	509	581
25	31	59449	375	542	688	793	263	426	568	649
25	34	62621	414	598	760	875	291	470	627	716
28	34	74735	472	682	865	996	331	535	714	816
28	38	84107	531	767	974	1121	373	602	803	918
29	40	90959	574	829	1053	1213	403	652	869	993
31	41	99115	626	904	1148	1322	439	710	947	1082
32	45	111833	706	1020	1295	1491	496	801	1068	1220
35	46	126904	801	1157	1469	1692	562	909	1212	1385
37	50	146713	926	1338	1699	1956	650	1051	1401	1601
38	55	171152	1080	1561	1982	2282	758	1226	1635	1868
43	58	206317	1302	1881	2389	2751	914	1478	1970	2251
45	65	239469	1512	2184	2773	3193	1061	1715	2287	2613

Notes:

Note：
1.Fresh Air Condition: entering air temperature 7°CDB.
2. Return Air Condition: entering air temperature 15°C DB.
3.Hot water entering/leaving temperature,60°C/50°C.Coil face velocity is 2.5m/s.
4.Manufacturer reserves the rights to change the data without prior notice.
5.Abbreviations:TH - Total Heating Capacity.

Industrial Solution Examples

With a focus on real-world application needs and insights from specialized fields, we have continuously refined the design of our Modular AHU products to align with specific scenarios. Our commitment is to deliver highly efficient, clean, and energy-saving solutions tailored to meet the unique demands of every application.



Medical Operating Room

Application features

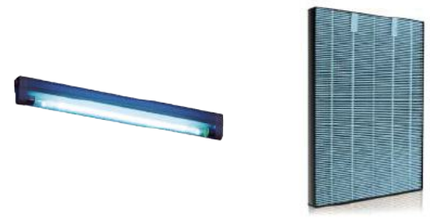
Hygiene requirements for air supply: 5~75cfu/m^3 bacterial concentration ISO 5~8.5 cleanliness

Frequent cleaning and disinfection inside the equipment

Low humidity in special operating department, requiring energy consumption for reheating

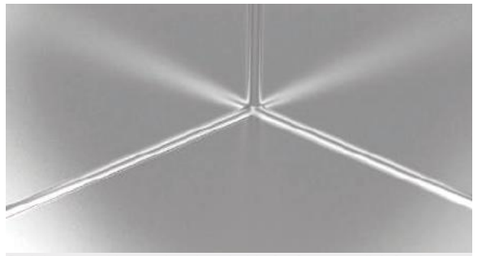
Product features

- Professional antibacterial configuration such as broad-spectrum high-efficiency UVC, silver ion antibacterial filter, and dust-free fan
- Stainless steel inner plate is suitable for frequent disinfection and is easy to clean, splicing is smooth
- The DX unit can provide low-humidity air supply and precise heat recovery, thereby guaranteeing the performance of the energy-saving system with temperature and humidity control typically used in hospitals.



Argenzil antibacterial filter + UV germicidal lamp

High efficiency impeller install to Electronically Commutated motor directly



Stainless steel inner plate is suitable for frequent disinfection and is easy to clean, splicing is smooth

TICA DX unit can reach low supply air temperature, which means can provide good dehumidifying performance even without a desiccant dehumidifier

* Some functions are optional. Consult TICA factory for detailed configuration.

Biopharmaceutical workshops

Application features

GMP — Comply with GMP whole-process supervision

Microbial contamination is strictly controlled in the production process

The airtightness of HEPA meets the GMP cleanliness requirements

Product features

· With the patented sealed HEPA mounting frame (ZL 2015 2 0338421.5), the air supply cleanliness after HEPA reaches ISO Class 5
· Ozone sterilization is used with a variable air flow fan to achieve disinfection mode switching, meeting GMP/FDA requirements
· 20+ large air-conditioning testing laboratories accredited by CNAS & ILAC MRA;
· Mature FAT testing solutions

Highly-sealed HEPA installation

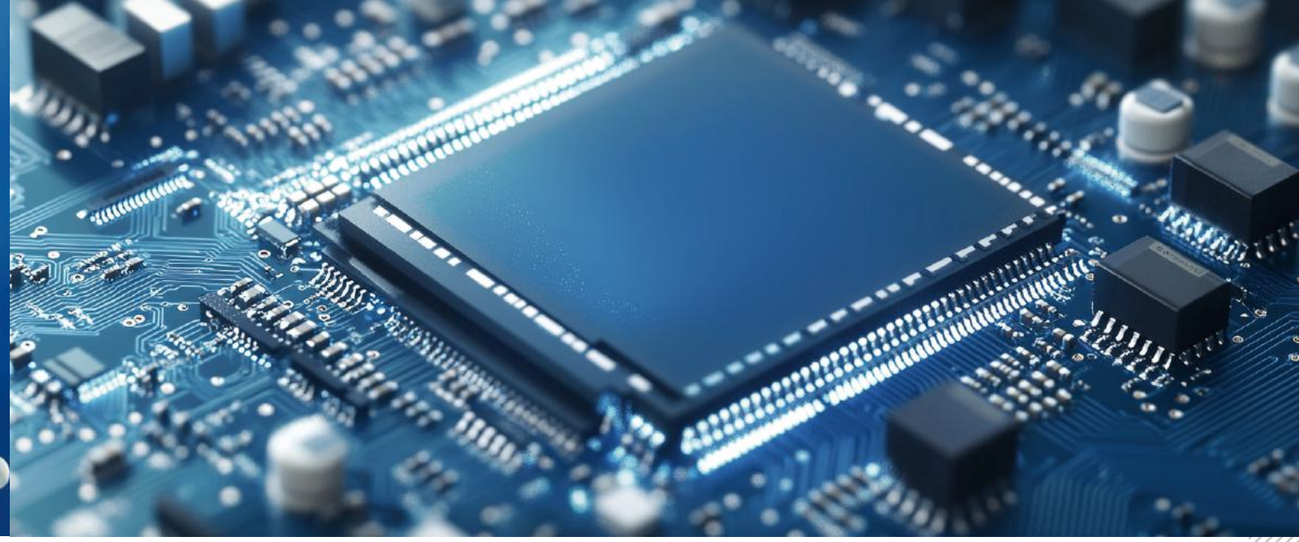
120,000 m^3/h large air flow testing

Ozone sterilization

Inverter motor

ILAC MRA certified testing laboratories

* Some functions are optional. Consult TICA factory for detailed configuration.



Large air flow MAU for Semiconductor factories

Application features

APC and AMC pollutants are strictly controlled

The demand for fresh air is complex and changeable

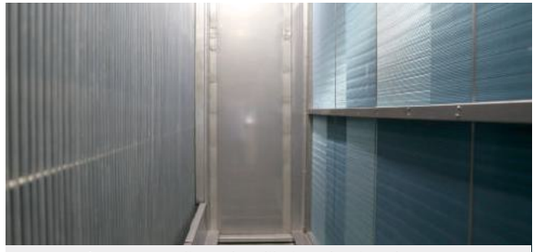
Large air flow and high air pressure fresh air devices are equipped

Product features

· Primary, medium and high efficiency filters, as well as water spray filter and chemical filter are configured for purification in electronics plants.
· The multi-stage high-efficiency heat exchanger suitable for large load of fresh air can cope with complex and changeable working conditions and meet indoor constant temperature and humidity requirements.
· High-strength MAU box ensures no deformation under large air flow and large static pressure.

Activated carbon filter

Spray humidification



Large-capacity and multi-stage heat exchanger

High-strength MAU box

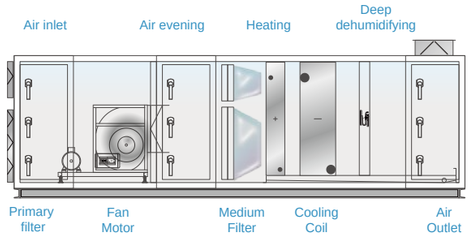
* Some functions are optional. Consult TICA factory for detailed configuration.

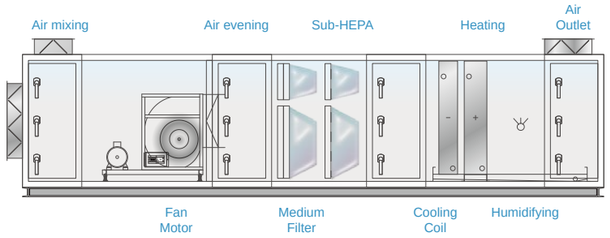
Modular Air Handling Units

Sample Configuration: For Medical Operation Rooms

Energy-saving Fresh Air + Circulating Air Conditioning Section Arrangement

Fresh Air Unit	Primary filter + Fan Motor + Air Evening + Medium filter + Heating + Cooling + Deep dehumidifying + Air outlet
Circulating Air Conditioning Unit	Air Mixing + Fan motor + Air evening + Medium filter + HEPA filter + Cooling + Heating + Humidifying + Air outlet





Main parameter estimation table for typical applications

Type	Air flow (m^3/h)	ESP (Pa)	Motor power (kW)	Cooling (Surface cooling/ Deep dehumidifying) (kW)	Heating Capacity (kW)	Outline Dimensions (WxDxH, mm)
Fresh Air Unit	3000	500	3	65/15	20	4100*967*792
	4000	500	4	87/22	27	4100*1171*894
	5000	500	5.5	108/28	34	4200*1120*996
	6000	500	5.5	131/32	40	4200*1324*996
	8000	500	7.5	170/43.5	54	4400*1324*1200
	10000	500	7.5	222/53	68	4400*1528*1200
	12000	500	7.5	260/64	81	4500*1630*1302
	16000	500	11	340/87	108	5000*1885*1506
Circulating Air Conditioning Unit	2500	650	2.2	2.7/0	9.5	4400*814*894
	3000	650	3	3.0/0	10	4400*865*894
	4000	650	3	3.1/0	16	4500*967*996
	5000	650	4	3.2/0	20	4500*1120*996
	6000	650	4	3.4/0	24	4600*1273*996
	8000	650	5.5	5.0/0	32	4600*1528*996
	10500	650	7.5	6.4/0	41	4900*1528*1200
	12500	650	11	7.8/0	50	5000*1630*1302
	14500	650	11	9.5/0	58	5100*1783*1353
	16500	650	11	11.0/0	66	5500*1783*1506

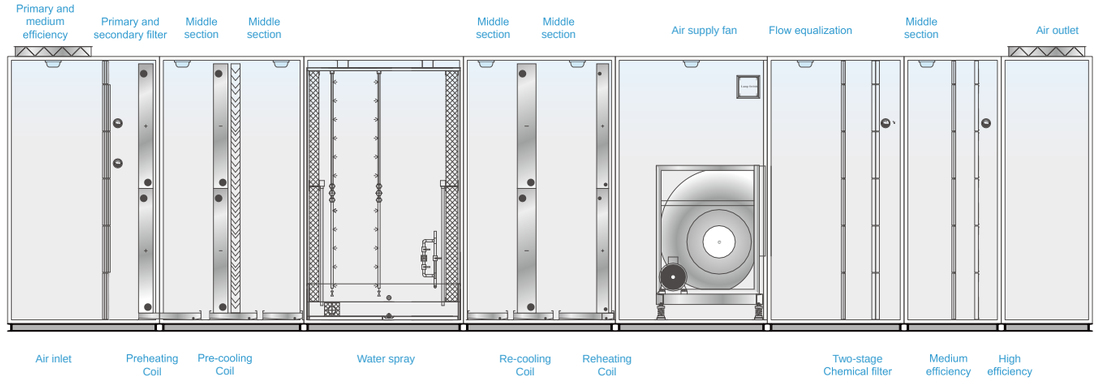
Notes:

1. The above are four-pipe fresh air handling units and four-pipe recirculating air handling units. For other solutions, please consult our local office.
2. The unit dimensions are estimated values. It is recommended that the equipment room space should not be less than the required dimensions.
3. For fresh air units, the summer inlet air is 38°C 160%, chilled water inlet/outlet temperature is 7°C/12°C, and the outlet air temperature after deep dehumidification is 10°C; the winter inlet air is -12°C, hot water inlet/outlet temperature is 45°C/40°C; the fluorine system cooling capacity is the rated cooling capacity under national standard conditions, not the actual required dehumidification cooling capacity.
4. For recirculating air units, the return air is 24°C/50%, chilled water inlet/outlet temperature is 7°C/12°C, and hot water inlet/outlet temperature is 45°C/40°C.
5. The motor power is an estimated value with reserved margin. The current motor power is based on the resistance brought by the unselected F8 level (fresh air unit) and H12 level (recirculating air unit) filters.
6. The principle of size selection recommendation is that the face velocity of the coil shall not exceed 2.5m/s (fresh air) / 2.7m/s (recirculating air).

Sample Configuration: Large air flow MAU for Semiconductor factories

Arrangement of full fresh air MAU function section in electronics plant

Air inlet + primary and medium efficiency + preheating + middle section + pre-cooling + middle section + water spray + middle section + re-cooling + middle section + reheating + fan + flow equalization + two-stage chemical + middle section + medium efficiency + high efficiency + air outlet



Main parameter estimation table for typical applications

Air flow (m^3/h)	ESP (Pa)	Motor power (kW)	Pre-cooling capacity (kW)	Re-cooling capacity (kW)	Preheating capacity (kW)	Reheating capacity (kW)	Unit dimensions (L x W x H) (mm)
40000	800	45	550	340	610	105	12900×3007×2085
45000	800	55	610	380	700	115	12900×2854×2442
50000	800	75	685	425	770	130	12900×3160×2442
55000	800	75	750	467	850	145	13900×2905×2697
60000	800	75	810	500	920	155	14000×3313×2697
70000	800	90	950	590	1080	180	14000×3619×2850
80000	800	90	1090	680	1240	205	14000×3874×2850
100000	800	110	1370	850	1550	260	15200×3772×3717
120000	800	132	1630	1010	1850	310	15200×4486×3717
140000	800	160	1900	1150	2100	360	15400×4690×4074
180000	800	200	2450	1520	2750	450	15400×5098×4686

Notes:

1.The above configuration is a full fresh air unit designed for a chip manufacturing plant. For other tailored solutions, please consult with us.
2.The motor power listed is an estimated value, accounting for a reserved margin. The actual motor power is calculated based on the resistance created by the final-stage H13 high-efficiency filter.
3.The unit size provided is an estimate. Ensure that the machine room space is no smaller than the required size. For precise dimensions and selection assistance, contact the TICA factory.
4.The air inlet conditions are 38°C/60% for the cooling season and -6°C/50% for the heating season.
5.The inlet and outlet temperatures for cold water are 14/20°C (pre-cooling) and 7/13°C (re-cooling), while for hot water, both the inlet and outlet temperatures are 38/32°C.
6.For optimal performance, it is recommended that the air velocity across the coil does not exceed 2.5 m/s.

Direct Expansion (DX) Air Handling Units

Direct Expansion (DX) Air Handling Units

Champion Product, Inverter Upgrade

Our inverter direct expansion air handling unit seamlessly integrates the industry-leading modular air handling unit with inverter air conditioning technology, introducing a frequency conversion air handling system.

The outdoor unit adopts world-renowned inverter compressors complemented by our unique design to achieve powerful cooling and heating output for the unit. The compressor operates within an ultra-wide range, enabling precise energy regulation, eliminating energy waste, and contributing to carbon neutrality.

The indoor unit is based on our expertise and unique air handling unit, which can be tailored to customer needs to meet a wide variety of application scenarios, truly creating the most suitable solution for customers.

Tailor-Made, Infinitely Variable

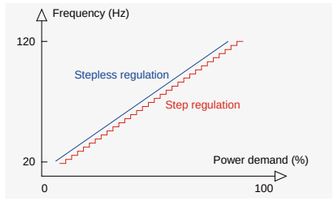
Our VRF direct expansion systems are divided into four main series, including recirculating air purification, recirculating air constant temperature and humidity, fresh air purification, and fresh air constant temperature and humidity.

The units have a wide range of applications, in addition to conventional commercial buildings and other comfortable places, they are mainly used in pharmaceutical factories, medical and health, bioengineering, food and beverage, electronics industry and other places that require air cleanliness and temperature and humidity control functions. They are suitable for air conditioning and purification areas ranging from tens to thousands of square meters. Compared with water system design, they have the advantages of simple system, convenient installation, and low cost.

DX Air Handling Units

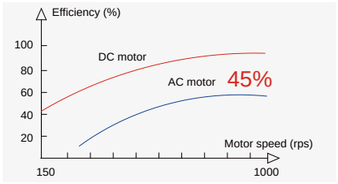
Features and Advantages

Stepless Adjustment, Accurate Control



High-Efficiency Full Inverter Compressor

Internationally renowned brand inverter compressor, full DC inverter · flexible scroll full DC inverter, precise speed and output control, stepless adjustment.



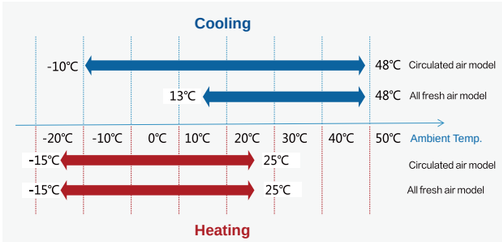
Stepless speed regulation. DC inverter fan motor

The fan performs stepless speed regulation according to the outdoor environment and air conditioning load status, and cooperates with the DC inverter compressor for precise control and temperature control; the outdoor unit fan adopts a DC variable speed motor, which improves efficiency by 45% compared with an AC motor, and Effectively reduce operating noise.

Full inverter design for significant energy savings

Fixed-speed direct expansion systems use on/off control, leading to overcooling and humidity issues at partial loads, requiring reheating and re-humidification. Inverter-driven units offer precise, stepless output, matching cooling demand without waste. Compared to four-stage fixed units, they save over 20% energy under the same load!

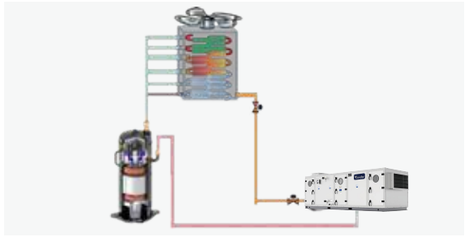
Wide Operating Range, Stable And Reliable



Professional Design, Superior Performance

Utilizing advanced DC inverter technology and a professionally designed heat exchanger, the equipment operates across a wide ambient temperature range, from a high of 48°C to a low of -15°C.

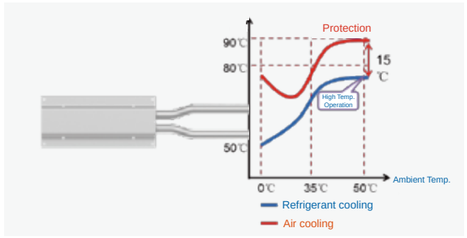
Lean Design, Efficient Operation



Intelligent Defrosting

Adaptive Technology: Automatically determines optimal defrost timing and duration, enhancing heating capacity and energy efficiency.

Anti-Frost Circuit Design: Ensures complete bottom defrosting, improving heat exchange efficiency.



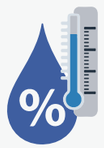
Innovative Refrigerant Cooling Technology · Micro-HEX

Adopts a unique all-aluminum integrated plate heat dissipation technology, utilizing condensed refrigerant (generally 30~55°C) to exchange heat with the drive module (maximum 90°C), significantly reducing the drive module's temperature. This ensures that, under harsh conditions, the compressor can maintain optimal operating temperatures.

Intelligent Control, Worry-Free Use

Standard "Black Box" function, ensuring operational safety (≥10HP)

The unit is equipped with a professional information storage device, "black box", which can store ten years of operating data and memorize fault information, improving maintenance and debugging efficiency, and ensuring operational safety.



Patented Constant Temperature And Humidity Control Technology

Fast, precise, and energy-efficient.
Original constant temperature and humidity control logic adjusts the control target under different temperature deviation conditions to achieve fast and precise humidity control effect.

DX Air Handling Units

Technologically advanced, with superior performance

Classic indoor unit, high-end customization

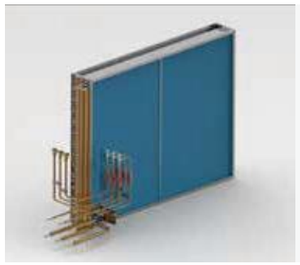
Sales have been leading the industry for many consecutive years
Overall Eurovent certified, reliable performance
Various functional sections can be selected on demand to meet customized needs.

New Energy-Saving Applications in the Industry

Fans can use EC fans to achieve adjustable air volume and pressure, meeting the needs of variable operating conditions in the system, operating efficiently, and reducing energy consumption.
EC fan wall design can be selected according to project requirements to achieve high air volume and low energy consumption operation.

Unique Design, Superior Sterilization Technology

The water tray features a stainless steel V-shaped double-sloping sinking drain design for quick drainage and resistance to bacterial growth. The water tray is made of antibacterial material, which can continuously sterilize with a sterilization efficiency of over 99.9%. It can also be optionally equipped with an ultraviolet sterilization lamp to ensure the cleanliness and hygiene of the air system.



Professional Design, Superior Performance

The indoor unit's heat exchanger utilizes high-quality internally threaded copper tubes, effectively increasing the heat exchange area. The refrigerant distribution employs a Venturi-type distribution head, ensuring uniform liquid dispersion and enhancing heat exchange efficiency. The heat exchanger's capacity is optimized through professional software simulation design, achieving the best possible operating performance.

DX AHU Applications

Circulated Air DX AHU

In industrial plants, hospital operating rooms, food and beverage processing, pharmaceutical factories, electronic industries, and other settings where partial fresh air or full recirculation air conditioning systems are used and constant indoor temperature and humidity are required, the frequent start and stop of the air conditioning system often causes significant fluctuations in temperature and humidity.
Our variable frequency recirculating fan purification air conditioning units and variable frequency recirculating fan constant temperature and humidity air conditioning units utilize a full variable frequency system. This system achieves stepless adjustment of cooling capacity output over a wide range, providing a rapid response and allowing for precise regulation of the entire air conditioning system's capacity. By eliminating frequent starts and stops, these units ensure that the supply air temperature is precisely maintained at the target setpoint, satisfying the indoor temperature and humidity requirements.

Operation room

Industrial space

Food processing

All Fresh Air DX AHU

Animal laboratories, pathology/inspection laboratories, intravenous drug preparation centers, gene amplification laboratories (PCR), and obstetrics operating rooms, among others, utilize fresh air purification systems to continuously and stably provide large amounts of fresh air. While preventing cross-contamination, these systems can lead to higher energy consumption. Indoor temperature and humidity requirements are stringent, and fresh air conditions vary greatly throughout the year, requiring the purification and air conditioning system to have strong adaptability. Our variable frequency fresh air purification air conditioning units and variable frequency fresh air constant temperature and humidity air conditioning units adopt a scientific energy distribution plan. They rationally utilize single-stage or two-stage direct expansion coil processing methods based on capacity requirements, achieving precise energy regulation with a cost-effective configuration. This perfectly adapts to the constant temperature requirements of fresh air systems.

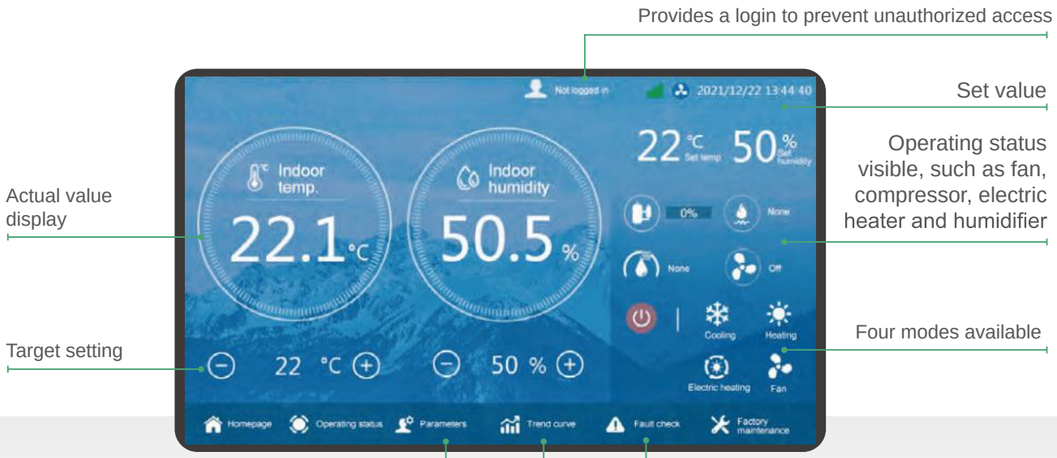
Formulation Laboratory

Animal Laboratory

Drug Compounding Center

Control Functions

Fully Functional, Easy To Operate

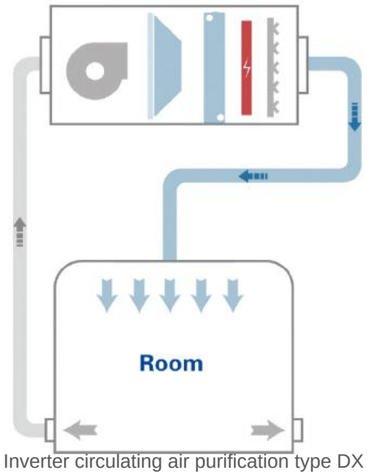


Notes:

1. Heat pump unit: Cooling / Heating / Ventilation / Electric heating modes, switched through a 7-inch LCD control panel.
2. Temperature / Humidity setting range: 8~45°C, 35~90%.
3. Timing on/off function: Supports setting by day of the week (Monday to Sunday) and time (24-hour format, adjustable to the minute).
4. Preheating function: When the intake air temperature is below 0°C, preheating is activated to ensure normal system operation; typically configured with a 1:2:4 ratio.
5. Auxiliary electric heating function: When the direct expansion coil heating capacity is insufficient, auxiliary heating is activated to ensure the unit's heating capacity.
6. Standard equipped with a 7-inch LCD control panel, which can be installed in the local control cabinet or the user's centralized control room, with a standard cable length of 30m (or 100m) optional.
The display can show set temperature and humidity, actual temperature and humidity, operating mode, system real-time clock, day of the week, on/off status, fault display, etc.
7. Rotating defrost function: Multi-system units can achieve alternating defrost function, so that when the unit is defrosting, the indoor temperature and humidity requirements remain stable.
8. Defrost compensation function: When the outdoor unit is defrosting, the preheating electric heater (if any) and the reheating electric heater (if any) will operate for compensation according to the indoor temperature demand.
9. Reserved Modbus communication interface, which can transmit unit operating status, fault alarms and other information, and supports on/off, mode setting, temperature and humidity setting functions. It also supports centralized control for multiple systems on site.

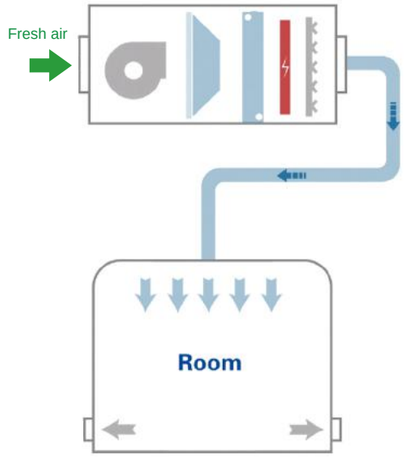
System Application Solution Types

Type 1: All circulated air



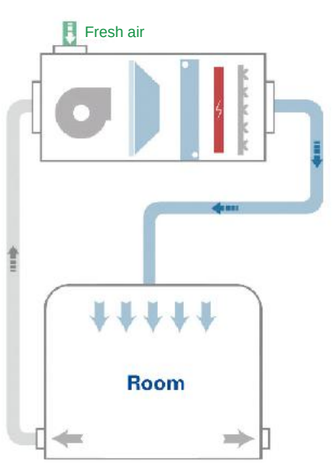
Model: Inverter circulating air purification type DX AHU

Type 2: All fresh air

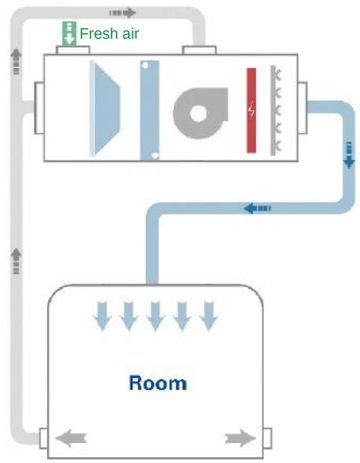


Model: Inverter all fresh air purification type DX AHU

Type 3: Primary return air with fresh air DX solution/Secondary return air with fresh air DX solution



Primary air return



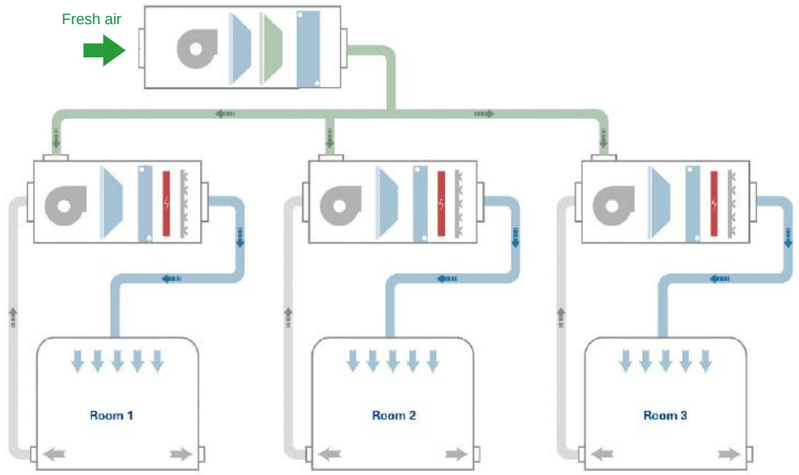
Secondary air return

Model: Inverter Air Purifying Air Conditioning Unit/Inverter Circulated Air Constant Temperature and Humidity Air Conditioning Unit

Application: Places with partial fresh air usage. The primary return air scheme is suitable for places with a small number of air changes, and the secondary return air scheme is suitable for places with a large number of air changes or where the selected air volume is much larger than the nominal air volume.

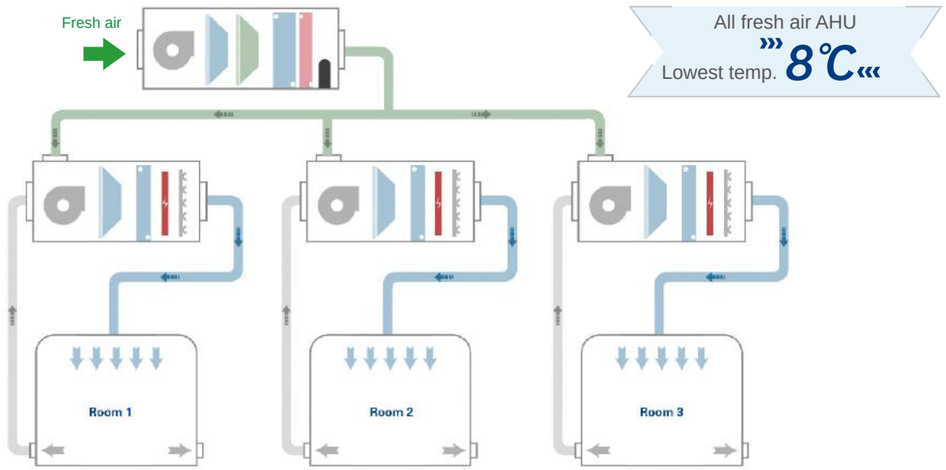
DX Air Handling Units

Type 4: Primary air return + Fresh air pre-handling solution



Fresh air unit: Inverter all fresh air purifying DX AHU
Circulated air unit: Inverter circulated air purifying DX AHU, Inverter circulated Air Constant Temperature and Humidity DX AHU

Type 5: Primary return air + Fresh air deep dehumidification solution



Fresh air unit: Inverter all fresh air Constant Temperature and Humidity DX AHU
Circulated air unit: Inverter circulated air purifying DX AHU,
Inverter circulated Air Constant Temperature and Humidity DX AHU
Applicable to: Locations requiring temperature and humidity control.

Technical Specifications

DX AHU Specifications Index

Technical Specifications

Inverter Circulated Air Purifying DX AHU

Model	Indoor Frame Size		CTAC/CTBC	012017	014021	016020	016024	020024	020028	022030	022035
	Outdoor Model*Qty		CTSAV	0060CRCX*1	0080CRCX*1	0100DRCX*1	0120CRCX*1	0160CRCX*1	0200CRCX*1	0120CRCX*2	0260DRCX*1
System Specs	Cooling Capacity		kW	15	24.5	28	32	45	56	64	73.5
	Heating Capacity		kW	16	23	31	35	49.5	58	70	81.5
Indoor Unit	Airflow volume		m³/h	3000	4000	5000	6000	8000	10000	12000	15600
	DX section length		mm	500	500	600	600	600	600	600	600
	Coil resistance		pa	100	100	100	100	100	100	100	100
	Temp. control range		-	18~30℃							
	Power supply		-	380V 3N~ 50Hz							
	E-heater	Power	kW	12	12	16	20	28	36	42	46
Outdoor Unit	Compressor type			DC Inverter Compressor							
	Throttling type			Elecrical Expansion Valve							
	Dimension (Single unit)	Width	mm	985	985	985	930	1240	1500	930	1500
		Depth	mm	466	466	466	860	860	860	860	860
		Height	mm	840	1264	1264	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	84	125	125	220	220	320	220	325
	Power supply			220V~ 50Hz	380V 3N~ 50Hz						
	Power input (Single unit)	Cooling	kW	6.27	6.63	7.47	8.77	12.50	15.73	8.77	19.40
		Heating	kW	6.86	6.88	7.30	8.34	11.72	14.37	8.34	19.20
		Max	kW	7.00	10.80	17.50	17.90	24.50	26.30	17.90	30.00
		Cooling	A	28.60	11.24	12.33	14.28	21.25	26.06	14.28	44.5
		Heating	A	31.30	11.46	12.12	13.84	19.85	23.84	13.84	40.50
		Max	A	32.00	18.00	27.10	27.80	40.20	49.00	27.80	55.50
				R410A							
			kg	3.5	5.5	7.50	8.5	13.5	19	8.5*2	16.5
			ϕmm	9.52	9.52	12.7	12.7	12.7	15.88	12.7*2	19.05
			ϕmm	15.88	19.05	22.23	22.23	28.6	28.6	22.23*2	31.75
				DN32							

Model	Indoor Frame Size		CTAC/CTBC	026035	026040	030046	030048	037043	037046	042049	047055
	Outdoor Model*Qty		CTSAV	0320DRCX*1	0200CRCX*2	0160CRCX*3	0260DRCX*2	0200CRCX*3	0320DRCX*2	0200CRCX*4	0320DRCX*3
System Specs	Cooling Capacity		kW	90	112	135	147	168	180	224	270
	Heating Capacity		kW	100	116	148.5	163	174	200	232	300
Indoor Unit	Airflow volume		m³/h	19200	20000	25000	26000	30000	32000	37500	48000
	DX section length		mm	600	600	800	800	800	800	800	800
	Coil resistance		pa	100	100	100	100	100	100	100	100
	Temp. control range		-	18~30℃							
	Power supply		-	380V 3N~ 50Hz							
	E-heater	Power	kW	56	70	90	90	100	110	140	160
Outdoor Unit	Compressor type			DC Inverter Compressor							
	Throttling type			Elecrical Expansion Valve							
	Dimension (Single unit)	Width	mm	1900	1500	1240	1500	1500	1900	1500	1900
		Depth	mm	860	860	860	860	860	860	860	860
		Height	mm	1690	1690	1690	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	460	320	220	325	320	460	320	460
	Power supply			380V 3N~ 50Hz							
	Power input (Single unit)	Cooling	kW	24.78	15.73	12.50	19.40	15.73	24.78	15.73	24.78
		Heating	kW	24.3	14.37	11.72	19.20	14.37	24.3	14.37	24.3
		Max	kW	34.5	26.30	24.50	30.00	26.30	34.5	26.30	34.5
	Rated current (Single unit)	Cooling	A	54.5	26.06	21.25	44.5	26.06	54.5	26.06	54.5
		Heating	A	52.5	23.84	19.85	40.50	23.84	52.5	23.84	52.5
		Max	A	65.8	49.00	40.20	55.50	49.00	65.8	49.00	65.8
Refrigerant	Type			R410A							
	Charge Volume		kg	20	19*2	13.5*3	16.5*2	19*3	20*2	19*4	20*3
Connection	Connection method			Welded connection							
	Size	Liquid pipe	ϕmm	19.05	15.88*2	12.7*3	19.05	15.88*3	19.05*2	15.88*4	19.05*3
		Gas pipe	ϕmm	31.75	28.6*2	28.6*3	31.75	28.6*3	31.75*2	28.6*4	31.75*3
Condensate water tray connection pipe				DN32							

Notes:

1. The nominal cooling capacity is measured under the conditions of indoor dry/wet bulb temperature 27/19°C and outdoor dry/wet bulb temperature 35/-°C.
2. The nominal heating capacity is measured under the conditions of indoor dry/wet bulb temperature 20/15°C and outdoor dry/wet bulb temperature 7/6°C.
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions.
4. Piping conditions for unit performance testing: equivalent refrigerant length 7.5m (horizontal).
5. Operating ambient temperature range of the unit: cooling: -10~48°C, heating: -15~25°C.
6. Specifications are subject to change without prior notice due to product improvement. Please refer to the unit nameplate for details.
7. For the outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current during wiring.

Notes:

1. The nominal cooling capacity is measured under the conditions of indoor dry/wet bulb temperature 27/19°C and outdoor dry/wet bulb temperature 35/-°C.
2. The nominal heating capacity is measured under the conditions of indoor dry/wet bulb temperature 20/15°C and outdoor dry/wet bulb temperature 7/6°C.
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions.
4. Piping conditions for unit performance testing: equivalent refrigerant length 7.5m (horizontal).
5. Operating ambient temperature range of the unit: cooling: -10~48°C, heating: -15~25°C.
6. Specifications are subject to change without prior notice due to product improvement. Please refer to the unit nameplate for details.
7. For the outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current during wiring.

Inverter Circulated Air Constant Temp&Humidity DX AHU

Model	Indoor Frame Size		CTAC/ CTBC		012017	014021	016020	016024	020024	020028	022030	022035
	Outdoor Model *Qty		CTSAV		0060CRCX*1	0080CRCX*1	0100DRCX*1	0120CRCX*1	0160CRCX*1	0200CRCX*1	0120CRCX*2	0260DRCX*1
System Specs	Cooling Capacity			kW	15	24.5	28	32	45	56	64	73.5
	Heating Capacity			kW	16	23	31	35	49.5	58	70	81.5
Indoor Unit	Airflow volume			m³/h	3000	4000	5000	6000	8000	10000	12000	15600
	DX section length			mm	500	500	600	600	600	600	600	600
	Coil resistance			pa	125	125	125	125	125	125	125	125
	Temp. control range			–	Cooling 20～26℃（±1℃） Heating 20～26℃（±2℃）							
	Humidity control range			–	Cooling 45～65%（±5%） Heating 45～65%（±10%）							
	Power supply			–	380V 3N～ 50Hz							
	E-heater	Power		kW	12	12	16	20	28	36	42	46
	Humidifier	Type		–	Electrode type humidifier							
		Volume		kg/h	6	8	15	15	15	25	25	25
Outdoor Unit	Compressor type				DC Inverter Compressor							
	Throttling type				Elecrical Expansion Valve							
	Dimension (Single unit)	Width		mm	985	985	985	930	1240	1500	930	1500
		Depth		mm	466	466	466	860	860	860	860	860
		Height		mm	840	1264	1264	1690	1690	1690	1690	1690
	Weight(Single unit)			kg	84	125	125	220	220	320	220	325
	Power supply				220V～50Hz	380V 3N～ 50Hz						
	Power input (Single unit)		Cooling	kW	6.27	6.63	7.47	8.77	12.50	15.73	8.77	19.40
			Heating	kW	6.86	6.88	7.30	8.34	11.72	14.37	8.34	19.20
			Max	kW	7.00	10.80	17.50	17.90	24.50	26.30	17.90	30.00
	Rated current (Single unit)		Cooling	A	28.60	11.24	12.33	14.28	21.25	26.06	14.28	44.5
			Heating	A	31.30	11.46	12.12	13.84	19.85	23.84	13.84	40.50
			Max	A	32.00	18.00	27.10	27.80	40.20	49.00	27.80	55.50
Refrigerant	Type				R410A							
	Charge Volume			kg	3.5	5.5	7.5	8.5	13.5	19	8.5*2	16.5
Connection	Connection method				Welded connection							
	Size	Liquid pipe		ϕmm	9.52	9.52	12.7	12.7	12.7	15.88	12.7*2	19.05
		Gas pipe		ϕmm	15.88	19.05	22.23	22.23	28.6	28.6	22.23*2	31.75
Condensate water tray connection pipe					DN32							

Model	Indoor Frame Size		CTAC/ CTBC		026035	026040	030046	030048	037043	037046	042049	047055
	Outdoor Model *Qty		CTSAV		0320DRCX*1	0200CRCX*2	0160CRCX*3	0260DRCX*2	0200CRCX*3	0320DRCX*2	0200CRCX*4	0320DRCX*3
System Specs	Cooling Capacity			kW	90	112	135	147	168	180	224	270
	Heating Capacity			kW	100	116	148.5	163	174	198	232	297
Indoor Unit	Airflow volume			m³/h	19200	20000	25000	31200	30000	32000	37500	48000
	DX section length			mm	600	600	800	800	800	800	800	800
	Coil resistance			pa	125	125	125	125	125	125	125	125
	Temp. control range			–	制冷20～26℃（±1℃） 制热20～26℃（±2℃）							
	Humidity control range			–	制冷45～65%（±5%） 制热45～65%（±10%）							
	Power supply			–	380V 3N～ 50Hz							
	E-heater	Power		kW	56	70	90	92	100	110	140	160
	Humidifier	Type		–	Electrode type humidifier							
		Volume		kg/h	35	45	45	50	65	65	90	110
Outdoor Unit	Compressor type				DC Inverter Compressor							
	Throttling type				Elecrical Expansion Valve							
	Dimension (Single unit)	Width		mm	1900	1500	1240	1500	1500	1900	1500	1900
		Depth		mm	860	860	860	860	860	860	860	860
		Height		mm	1690	1690	1690	1690	1690	1690	1690	1690
	Weight(Single unit)			kg	460	320	220	325	320	460	320	460
	Power supply				380V 3N～ 50Hz							
	Power input (Single unit)		Cooling	kW	24.78	15.73	12.50	19.40	15.73	24.78	15.73	24.78
			Heating	kW	24.3	14.37	11.72	19.20	14.37	24.3	14.37	24.3
			Max	kW	34.5	26.30	24.50	30.00	26.30	34.5	26.30	34.5
	Rated current (Single unit)		Cooling	A	54.5	26.06	21.25	44.5	26.06	54.5	26.06	54.5
			Heating	A	52.5	23.84	19.85	40.50	23.84	52.5	23.84	52.5
			Max	A	65.8	49.00	40.20	55.50	49.00	65.8	49.00	65.8
Refrigerant	Type				R410A							
	Charge Volume			kg	20	19*2	13.5*3	16.5*2	19*3	20*2	19*4	20*3
Connection	Connection method				Welded connection							
	Size	Liquid pipe		ϕmm	19.05	15.88*2	12.7*3	19.05	15.88*3	19.05*2	15.88*4	19.05*3
		Gas pipe		ϕmm	31.75	28.6*2	28.6*3	31.75	28.6*3	31.75*2	28.6*4	31.75*3
Condensate water tray connection pipe					DN32							

Notes:

1. Nominal cooling capacity is measured under the condition of indoor dry/wet bulb temperature 24/17°C and outdoor dry/wet bulb temperature 35/-°C;
2. Nominal heating capacity is measured under the condition of indoor dry/wet bulb temperature 20/15°C and outdoor dry/wet bulb temperature 7/6°C;
3. Rated cooling capacity does not consider the heat loss of the fan motor, and nominal air volume refers to the operating air volume under standard conditions;
4. Piping conditions for unit performance test: equivalent refrigerant length 7.5m (horizontal);
5. Ambient temperature range for unit operation: cooling: -10~48°C, heating: -15~25°C;
6. If the local water source conductivity exceeds the conductivity range required by the electrode humidifier, please select an electric heating humidifier;
7. Specifications are subject to change without notice due to product improvements. Please refer to the unit nameplate;
8. For outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring;
9. Conventional constant temperature and humidity air conditioning unit control can only guarantee the temperature and humidity control accuracy of the return air.

Notes:

1. Nominal cooling capacity is measured under the condition of indoor dry/wet bulb temperature 24/17°C and outdoor dry/wet bulb temperature 35/-°C;
2. Nominal heating capacity is measured under the condition of indoor dry/wet bulb temperature 20/15°C and outdoor dry/wet bulb temperature 7/6°C;
3. Rated cooling capacity does not consider the heat loss of the fan motor, and nominal air volume refers to the operating air volume under standard conditions;
4. Piping conditions for unit performance test: equivalent refrigerant length 7.5m (horizontal);
5. Ambient temperature range for unit operation: cooling: -10~48°C, heating: -15~25°C;
6. If the local water source conductivity exceeds the conductivity range required by the electrode humidifier, please select an electric heating humidifier;
7. Specifications are subject to change without notice due to product improvements. Please refer to the unit nameplate;
8. For outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring;
9. Conventional constant temperature and humidity air conditioning unit control can only guarantee the temperature and humidity control accuracy of the return air.

Inverter All Fresh Air Purifying DX AHU

Model			CTAC/CTBC	012013	012016	012016	012018	014020	016022	016024	016024
	Outdoor Model*Qty		CTSAV	0060CRCX*1	0080CRCX*1	0100DRCX*1	0120CRCX*1	0160CRCX*1	0200CRCX*1	0120CRCX*2	0260DRCX*1
System Specs	Cooling Capacity		kW	15	24.5	28	32	45	56	64	73.5
	Heating Capacity		kW	16	21.5	26	30	43	52	60	66.5
Indoor Unit	Airflow volume		m³/h	1300	1800	1950	2250	3300	4100	4500	4750
	DX section length		mm	600	600	600	600	600	600	600	600
	Coil resistance		pa	150	150	150	150	150	150	150	150
	Temp. control range		-	18～30℃							
	Power supply		-	380V 3N～ 50Hz							
	Electrical pre-heating		-	Select the model based on the minimum outdoor ambient temperature for heating. Preheat the fresh air temperature to above 5°C.							
Outdoor Unit	Compressor type			DC Inverter Compressor							
	Throttling type			Elecrical Expansion Valve							
	Dimension (Single unit)	Width	mm	985	985	985	930	1240	1500	930	1500
		Depth	mm	466	466	466	860	860	860	860	860
		Height	mm	840	1264	1264	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	84	125	125	220	220	320	220	325
	Power supply		-	220V～50Hz	380V 3N～ 50Hz						
	Power input (Single unit)	Cooling	kW	6.27	6.63	7.47	8.77	12.50	15.73	8.77	19.40
		Heating	kW	6.86	6.88	7.30	8.34	11.72	14.37	8.34	19.20
		Max	kW	7.00	10.80	17.50	17.90	24.50	26.30	17.90	30.00
	Rated current (Single unit)	Cooling	A	28.6	11.24	12.33	14.28	21.25	26.06	14.28	44.5
		Heating	A	31.3	11.46	12.12	13.84	19.85	23.84	13.84	40.50
		Max	A	32.00	18.00	27.10	27.80	40.20	49.00	27.80	55.50
Refrigerant	Type			R410A							
	Charge Volume		kg	3.5	5.5	7.5	8.5	13.5	19	8.5*2	16.5
Connection	Connection method			Welded connection							
	Size	Liquid pipe	ϕmm	9.52	9.52	12.7	12.7	12.7	15.88	12.7*2	19.05
		Gas pipe	ϕmm	15.88	19.05	22.23	22.23	28.6	28.6	22.23*2	31.75
Condensate water tray connection pipe				DN32							

Notes:

1. The nominal cooling capacity is measured under outdoor dry/wet bulb temperature of 35/28°C.
2. The nominal heating capacity is measured under outdoor dry/wet bulb temperature of 7/6°C.
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions.
4. Piping conditions for unit performance test: equivalent refrigerant length of 7.5m (horizontal).
5. The ambient temperature range for unit operation: cooling: 13~48°C, heating: -15~25°C (with electric preheating). When the outdoor ambient temperature is below 0°C and heating operation is required, electric heating preheating of fresh air is needed. The electric preheating capacity should be selected based on preheating the minimum outdoor ambient temperature to above 5°C.
6. Specifications are subject to change due to product improvement without prior notice. Please refer to the unit nameplate.
7. For outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring.

Model			CTAC/CTBC	020026	020032	022032	022032	026037	026037	030041	037043
	Outdoor Model*Qty		CTSAV	0320DRCX*1	0200CRCX*2	0160CRCX*3	0260DRCX*2	0200CRCX*3	0320DRCX*2	0200CRCX*4	0320DRCX*3
System Specs	Cooling Capacity		kW	90	112	135	147	168	180	224	270
	Heating Capacity		kW	85	104	129	133	156	170	208	255
Indoor Unit	Airflow volume		m³/h	5800	8200	8800	9500	12300	13200	16400	19800
	DX section length		mm	600	600	800	800	800	800	800	800
	Coil resistance		pa	150	150	150	150	150	150	150	150
	Temp. control range		-	18～30℃							
	Power supply		-	380V 3N～ 50Hz							
	Electrical pre-heating		-	Select the model based on the minimum outdoor ambient temperature for heating. Preheat the fresh air temperature to above 5°C.							
Outdoor Unit	Compressor type			DC Inverter Compressor							
	Throttling type			Elecrical Expansion Valve							
	Dimension (Single unit)	Width	mm	1900	1500	1240	1500	1500	1900	1500	1900
		Depth	mm	860	860	860	860	860	860	860	860
		Height	mm	1690	1690	1690	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	460	320	220	325	320	460	320	460
	Power supply		-	380V 3N～ 50Hz							
	Power input (Single unit)	Cooling	kW	24.78	15.73	12.50	19.40	15.73	24.78	15.73	24.78
		Heating	kW	24.3	14.37	11.72	19.20	14.37	24.3	14.37	24.3
		Max	kW	34.5	26.30	24.50	30.00	26.3	34.5	26.30	34.5
	Rated current (Single unit)	Cooling	A	54.5	26.06	21.25	44.5	26.06	54.5	26.06	54.5
		Heating	A	52.5	23.84	19.85	40.50	23.84	52.5	23.84	52.5
		Max	A	65.8	49.00	40.20	55.50	49	65.8	49.00	65.8
Refrigerant	Type			R410A							
	Charge Volume		kg	20	19*2	13.5*3	16.5*2	19*3	20*2	19*4	20*3
Connection	Connection method			Welded connection							
	Size	Liquid pipe	ϕmm	19.05	15.88*2	12.7*3	19.05	15.88*3	19.05*2	15.88*4	19.05*3
		Gas pipe	ϕmm	31.75	28.6*2	28.6*3	31.75	28.6*3	31.75*2	28.6*4	31.75*3
Condensate water tray connection pipe				DN32							

Notes:

1. The nominal cooling capacity is measured under outdoor dry/wet bulb temperature of 35/28°C.
2. The nominal heating capacity is measured under outdoor dry/wet bulb temperature of 7/6°C.
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions.
4. Piping conditions for unit performance test: equivalent refrigerant length of 7.5m (horizontal).
5. The ambient temperature range for unit operation: cooling: 13~48°C, heating: -15~25°C (with electric preheating). When the outdoor ambient temperature is below 0°C and heating operation is required, electric heating preheating of fresh air is needed. The electric preheating capacity should be selected based on preheating the minimum outdoor ambient temperature to above 5°C.
6. Specifications are subject to change due to product improvement without prior notice. Please refer to the unit nameplate.
7. For outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring.

Inverter All Fresh Air Constant Temp&Humidity DX AHU

Model	Indoor Frame Size		CTAC/CTBC	012013	012016	012016	012018	014020	016022	016024	016024
	Outdoor Model *Qty		CTSAV	0060CRCX*1	0080CRCX*1	0100DRCX*1	0120CRCX*1	0160CRCX*1	0200CRCX*1	0120CRCX*2	0260DRCX*1
System Specs	Cooling Capacity		kW	15	24.5	28	32	45	56	64	73.5
	Heating Capacity		kW	16	21.5	26	30	43	52	60	66.5
Indoor Unit	Airflow volume		m³/h	1300	1800	1950	2250	3300	4100	4500	4750
	DX section length		mm	600	600	600	600	600	600	600	600
	Coil resistance		pa	150	150	150	150	150	150	150	150
	Temp. control range		–	20～26℃（±2℃）							
	Humidity control range		–	45～65%（±10%）							
	Power supply		–	380V 3N～ 50Hz							
	Electrical pre-heating		–	Select the model based on the minimum outdoor ambient temperature for heating. Preheat the fresh air temperature to above 5°C.							
	E-heater	Power	kW	6	6	8	8	12	14	16	16
	Humidifier	Type		Electrode type humidifier							
			kg/h	12	15	25	25	35	45	45	45
Outdoor Unit	Compressor type			DC Inverter Compressor							
	Throttling type			Elecrical Expansion Valve							
	Dimension (Single unit)	Width	mm	985	985	985	930	1240	1500	930	1500
		Depth	mm	466	466	466	860	860	860	860	860
		Height	mm	840	1264	1264	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	84	125	125	220	220	320	220	325
	Power supply		–	220V～50Hz	380V 3N～ 50Hz						
	Power input (Single unit)	Cooling	kW	6.27	6.63	7.47	8.77	12.50	15.73	8.77	19.40
		Heating	kW	6.86	6.88	7.30	8.34	11.72	14.37	8.34	19.20
		Max	kW	7.00	10.80	17.50	17.90	24.50	26.30	17.90	30.00
	Rated current (Single unit)	Cooling	A	28.60	11.24	12.33	14.28	21.25	26.06	14.28	44.5
		Heating	A	31.30	11.46	12.12	13.84	19.85	23.84	13.84	40.50
		Max	A	32.00	18.00	27.10	27.80	40.20	49.00	27.80	55.50
Refrigerant	Type			R410A							
	Charge Volume		kg	3.5	5.5	7.5	8.5	13.5	19	8.5*2	16.5
Connection	Connection method			Welded connection							
	Size	Liquid pipe	ϕmm	9.52	9.52	12.7	12.7	12.7	15.88	12.7*2	19.05
		Gas pipe	ϕmm	15.88	19.05	22.23	22.23	28.6	28.6	22.23*2	31.75
Condensate water tray connection pipe				DN32							

Model	Indoor Frame Size		CTAC/CTBC	020026	020032	022032	022032	026037	026037	030041	037043
	Outdoor Model *Qty		CTSAV	0320DRCX*1	0200CRCX*2	0160CRCX*3	0260DRCX*2	0200CRCX*3	0320DRCX*2	0200CRCX*4	0320DRCX*3
System Specs	Cooling Capacity		kW	90	112	135	147	168	180	224	270
	Heating Capacity		kW	85	104	129	133	156	170	208	255
Indoor Unit	Airflow volume		m³/h	5800	8200	8800	9500	12300	13200	16400	19800
	DX section length		mm	600	600	800	800	800	800	800	800
	Coil resistance		pa	150	150	150	150	150	150	150	150
	Temp. control range		–	20～26℃（±2℃）							
	Humidity control range		–	45～65%（±10%）							
	Power supply		–	380V 3N～ 50Hz							
	Electrical pre-heating		–								
	E-heater	Power	kW	22	28	34	32	42	48	54	66
	Humidifier	Type	–								
			kg/h	65	45*2	65+45	45*2	65+45	65*2	65*2+30	65*3
Outdoor Unit											
	Dimension (Single unit)	Width	mm	1900	1500	1240	1500	1500	1900	1500	1900
		Depth	mm	860	860	860	860	860	860	860	860
		Height	mm	1690	1690	1690	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	460	320	220	325	320	460	320	460
	Power supply		–	380V 3N～ 50Hz							
	Power input (Single unit)	Cooling	kW	24.78	15.73	12.50	19.40	15.73	24.78	15.73	24.78
		Heating	kW	24.3	14.37	11.72	19.20	14.37	24.3	14.37	24.3
		Max	kW	34.5	26.30	24.50	30.00	26.3	34.5	26.30	34.5
	Rated current (Single unit)	Cooling	A	54.5	26.06	21.25	44.5	26.06	54.5	26.06	54.5
		Heating	A	52.5	23.84	19.85	40.50	23.84	52.5	23.84	52.5
		Max	A	65.8	49.00	40.20	55.50	49	65.8	49.00	65.8
				R410A							
			kg	20	19*2	13.5*3	16.5*2	19*3	20*2	19*4	20*3
Connection	Connection method			Welded connection							
	Size	Liquid pipe	ϕmm	19.05	15.88*2	12.7*3	19.05*2	15.88*3	19.05*2	15.88*4	19.05*3
		Gas pipe	ϕmm	31.75	28.6*2	28.6*3	31.75*2	28.6*3	31.75*2	28.6*4	31.75*3
Condensate water tray connection pipe				DN32							

Notes:

1. The nominal cooling capacity is measured under the outdoor dry/wet bulb temperature of 35/28°C;
2. The nominal heating capacity is measured under the outdoor dry/wet bulb temperature of 7/6°C;
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions;
4. Piping conditions for unit performance test: equivalent refrigerant length of 7.5m (horizontal);
5. Ambient temperature range for the operation of the fresh air unit: cooling: 13~48°C, heating: -15~25°C (with electric preheating);
When the outdoor ambient temperature is lower than 0°C and heating operation is required, electric heating preheating of fresh air is required; the electric preheating capacity is selected based on preheating the lowest outdoor ambient temperature to above 5°C;
6. If the conductivity of the local water source exceeds the conductivity range required by the electrode humidifier, please choose an electric heating humidifier;
7. Specifications are subject to change without notice due to product improvement, please refer to the unit nameplate;
8. For the outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring;
9. The conventional constant temperature and humidity air conditioning unit can only achieve the temperature and humidity control accuracy at the location where the room sensor is installed. For the sensor installation location, please refer to the installation and operation manual.

Notes:

1. The nominal cooling capacity is measured under the outdoor dry/wet bulb temperature of 35/28°C;
2. The nominal heating capacity is measured under the outdoor dry/wet bulb temperature of 7/6°C;
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions;
4. Piping conditions for unit performance test: equivalent refrigerant length of 7.5m (horizontal);
5. Ambient temperature range for the operation of the fresh air unit: cooling: 13~48°C, heating: -15~25°C (with electric preheating);
When the outdoor ambient temperature is lower than 0°C and heating operation is required, electric heating preheating of fresh air is required; the electric preheating capacity is selected based on preheating the lowest outdoor ambient temperature to above 5°C;
6. If the conductivity of the local water source exceeds the conductivity range required by the electrode humidifier, please choose an electric heating humidifier;
7. Specifications are subject to change without notice due to product improvement, please refer to the unit nameplate;
8. For the outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring;
9. The conventional constant temperature and humidity air conditioning unit can only achieve the temperature and humidity control accuracy at the location where the room sensor is installed. For the sensor installation location, please refer to the installation and operation manual.

Inverter Split Type Deep Dehumidifying DX AHU

HP (1HP = 2.5kW)				6		8		10		12		16		20
Model	Outdoor Model *Qty		CTSAV	0060CRCX*1		0080CRCX*1		0100DRCX*1		0120CRCX*1		0160CRCX*1		0200CRCX*1
	Indoor Frame Size		CTAC/CTBC	012017	016020	016020	016024	016024	020024	020024	020028	020028	022030	022030
Cooling Capacity			kW	15	15	24.5	24.5	28	28	32	32	45	45	56
Airflow Volume			m³/h	3000	5000	5000	6500	6500	8500	8500	10300	10300	13000	13000
Airflow Volume Range			m³/h	1600~3300	2500~5500	2500~5500	3250~7300	3250~7300	3900~9200	3900~9200	5000~11000	5000~11000	6000~13500	6000~13500
Water coil optional rows			ROW	6~8										
Deep Dehumidifying Indoor Unit	Inlet air dew point temperature range		℃	13~18										
	Total length of water coil + Refrigerant coil		mm	900										
	Coil resistance		pa	150										
	Power supply		–	380V 3N~ 50Hz										
Outdoor Unit	Compressor type			DC Inverter Compressor										
	Throttling type			Elecrical Expansion Valve										
	Dimension (Single unit)	Width	mm	985	985	985	985	985	985	930	930	1240	1240	1500
		Depth	mm	466	466	466	466	466	466	860	860	860	860	860
		Height	mm	840	840	1264	1264	1264	1264	1690	1690	1690	1690	1690
	Weight(Single unit)		kg	84	84	125	125	125	125	220	220	220	220	320
	Power supply		–	220V~ 50Hz		380V 3N~ 50Hz								
	Power input (Single unit)	Rated	kW	6.27	6.27	6.63	6.63	6.63	6.63	8.77	8.77	12.50	12.50	15.73
		Max	kW	7.00	7.00	10.80	10.80	10.8	10.8	17.90	17.90	24.50	24.50	26.30
	Rated current (Single unit)	Rated	A	28.60	28.60	11.24	11.24	11.24	11.24	14.28	14.28	21.25	21.25	26.06
		Max	A	32.00	32.00	18.00	18.00	18	18	27.80	27.80	40.20	40.20	49.00
Refrigerant	Type			R410a										
	Charge Volume		kg	3.5	3.5	5.5	5.5	8.5	8.5	8.5	8.5	13.5	13.5	19
Connection	Connection method			Welded connection										
	Size	Liquid pipe	ϕmm	9.52	9.52	9.52	9.52	12.7	12.7	12.7	12.7	12.7	12.7	15.88
		Gas pipe	ϕmm	15.88	15.88	19.05	19.05	22.23	22.23	22.23	22.23	28.6	28.6	28.6
Condensate water tray connection pipe				DN32										

HP (1HP = 2.5kW)				24		32		40	48		60	80
Model	Outdoor Model *Qty		CTSAV	0120CRCX*2		0160CRCX*2		0200CRCX*2	0160CRCX*3		0200CRCX*3	0200CRCX*4
	Indoor Frame Size		CTAC/CTBC	026035	026035	026040	026040	030046	037043	037043	042049	
Cooling Capacity			kW	64	90	90	112	135	135	168	224	
Airflow Volume			m³/h	18000	18000	21000	21000	25000	31000	31000	38000	
Airflow Volume Range			m³/h	9000~19500	9000~19500	10500~22500	10500~22500	12500~26500	16500~34000	16500~34000	185000~42000	
Water coil optional rows			ROW	6~8								
Deep Dehumidifying Indoor Unit	Inlet air dew point temperature range		℃	13~18								
	Total length of water coil + Refrigerant coil		mm	900				1000				
	Coil resistance		pa	150								
	Power supply		–	380V 3N~ 50Hz								
Outdoor Unit	Compressor type			DC Inverter Compressor								
	Throttling type			Elecrical Expansion Valve								
	Dimension (Single unit)	Width	mm	930	1240	1240	1500	1240	1240	1500	1500	
		Depth	mm	860	860	860	860	860	860	860	860	
		Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	
	Weight(Single unit)		kg	220	220	220	320	220	220	320	320	
	Power supply		–	380V 3N~ 50Hz								
		Rated	kW	8.77	12.50	12.50	15.73	12.50	12.50	15.73	15.73	
		Max	kW	17.90	24.50	24.50	26.30	24.50	24.50	26.30	26.30	
	Rated current (Single unit)	Rated	A	14.28	21.25	21.25	26.06	21.25	21.25	26.06	26.06	
		Max	A	27.80	40.20	40.20	49.00	40.20	40.20	49.00	49.00	
Refrigerant	Type			R410a								
	Charge Volume		kg	8.5*2	13.5*2	13.5*2	19*2	13.5*3	13.5*3	19*3	19*4	
Connection	Connection method			Welded connection								
	Size	Liquid pipe	ϕmm	12.7*2	12.7*2	12.7*2	15.88*2	12.7*3	12.7*3	15.88*3	15.88*4	
		Gas pipe	ϕmm	22.23*2	28.6*2	28.6*2	28.6*2	28.6*3	28.6*3	28.6*3	28.6*4	
Condensate water tray connection pipe				DN32								

Notes:

1. Piping conditions for unit performance test: equivalent refrigerant length 7.5m (horizontal);
2. Ambient temperature range for fresh air unit cooling operation: 13~48°C;
3. For outdoor unit wiring specifications, please refer to the "Electrical Parameter Table" in the brochure. Be sure to refer to the maximum power and maximum current when wiring;
4. The diameter of the refrigerant connecting pipe between the indoor and outdoor units is the same as the diameter of the refrigerant pipe of the outdoor unit.

Inverter DX AHU Outdoor Unit (Long Connection Piping) Technical Specifications

Outdoor Model *Qty		CTSAV	0100CRCL*1	0120CRCL*1	0160CRCL*1	0200CRCL*1	0120CRCL*2	0200CRCL*2	0160CRCL*3	0200CRCL*3	0200CRCL*4
Capacity in HP (1HP = 2.5kW)		HP	10HP	12HP	16HP	20HP	24HP	40HP	48HP	60HP	80HP
Cooling Capacity 1		kW	28	32	45	56	64	112	135	168	224
Heating Capacity 1		kW	27	31	49	53	62	106	147	159	212
Cooling Capacity 2		kW	28	32	45	56	64	112	135	168	224
Heating Capacity 2		kW	32	38	51	63	76	126	153	189	252
Compressor type		–	DC Inverter Compressor								
Throttling type		–	Elecrical Expansion Valve								
Dimension (Single unit)	Width	mm	930	930	1240	1500	930	1500	1240	1500	1500
	Depth	mm	860	860	860	860	860	860	860	860	860
	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690
Weight(Single unit)		kg	228	228	293	343	228	343	293	343	343
Power supply		–	380V 3N~ 50Hz								
Power input (Single unit)	Cooling	kW	7.29	8.69	12.35	15.49	8.69	15.49	12.35	15.49	15.49
	Heating	kW	8.90	10.60	15.00	19.00	10.60	19.00	15.00	19.00	19.00
	Max	kW	11.00	15.00	26.00	28.00	15.00	28.00	26.00	28.00	28.00
Rated current (Single unit)	Cooling	A	15.90	19.00	26.90	30.00	19.00	30.00	26.90	30.00	30.00
	Heating	A	15.40	18.30	25.90	31.00	18.30	31.00	25.90	31.00	31.00
	Max	A	18.60	28.40	40.20	42.00	28.40	42.00	40.20	42.00	42.00
Refrigerant Type		–	R410A								
Single unit Refrigerant Charge		kg	8.5	8.5	12.5	19	8.5*2	19*2	12.5*3	19*3	19*4
Connection method		–	Welded connection								
Connection Pipe Size	Liquid pipe	ϕmm	12.7	12.7	12.7	15.88	12.7*2	15.88*2	12.7*3	15.88*3	15.88*4
	Gas pipe	ϕmm	28.58	28.58	28.58	28.58	28.58*2	28.58*2	28.58*3	28.58*3	28.58*4

Inverter DX AHU Outdoor Unit (Long Connection Piping) Connection Pipes Specifications

Outdoor Model	Indoor Outdoor Connection Pipe Size		Addtional refrigerant charge volume when pipe length > 7.5 meters	Connection Pipe Length/ Height Diff. Limits
	Liquid pipe	Gas pipe		
CTSAV0100CRCL	ϕ12.7	ϕ28.58	0.11kg/m	100m/50m
CTSAV0120CRCL	ϕ12.7	ϕ28.58	0.11kg/m	100m/50m
CTSAV0160CRCL	ϕ12.7	ϕ28.58	0.11kg/m	≤40m/40m
	ϕ15.88	ϕ31.7	0.17kg/m	40~100m/50m
CTSAV0200CRCL	ϕ15.88	ϕ28.58	0.17kg/m	≤40m/40m
	ϕ19.05	ϕ31.7	0.26kg/m	40~100m/50m

Notes:

1. Cooling capacity 1 is measured under outdoor dry/wet bulb temperature conditions of 35/28°C; heating capacity 1 is measured under outdoor dry/wet bulb temperature conditions of 7/6°C;
2. Cooling capacity 2 is measured under indoor dry/wet bulb temperature conditions of 24/17°C and outdoor dry/wet bulb temperature conditions of 35/-°C; heating capacity 2 is measured under indoor dry/wet bulb temperature conditions of 20/15°C and outdoor dry/wet bulb temperature conditions of 7/6°C;
3. The rated cooling capacity does not consider the heat loss of the fan motor, and the nominal air volume refers to the operating air volume under standard conditions;
4. Piping conditions for unit performance testing: equivalent refrigerant length 7.5m (horizontal);
5. For 32HP, 64HP, and 96HP cooling capacity, if the equivalent length of connecting pipes needs to reach 50~100m, TSAVO320CRCX single-module and multi-module direct expansion can be used to meet the requirements;
6. The specifications of the outdoor unit wiring are shown in the sample "Electrical Parameter Table". Be sure to refer to the maximum power and maximum current when wiring;
7. When the ambient temperature and unit supply air temperature deviate from the rated operating conditions, or the length of the connecting pipe is greater than 7.5m, the cooling capacity correction factor can be found in the performance variation table.

Indoor AHU Airflow Volume Table

Table 1: For indoor water coil adopts a large enthalpy difference design, which is suitable for handling fresh air conditions (inlet and outlet air enthalpy difference >30kJ/kg, or cooling capacity/air volume of the indoor water coil >10W/CMH)

SN	Outdoor Specs	Indoor Specs	Coil surface air velocity m/s							
			1	1.2	1.5	1.8	2	2.2	2.5	2.8
1	Single ODU（0060）	012013	768	922	1152	1382	1536	1690	1920	2150
2	Single ODU（0080）	012016	971	1165	1457	1748	1942	2137	2428	2719
3	Single ODU（0100）	012016	1079	1295	1618	1942	2158	2373	2697	3021
4	Single ODU（0120）	012018	1262	1514	1893	2272	2524	2776	3155	3534
5	Single ODU（0160）	014018	1554	1864	2331	2797	3107	3418	3884	4350
6		016016	1552	1862	2327	2793	3103	3413	3879	4344
7		014020	1734	2080	2600	3120	3467	3814	4334	4854
8	Single ODU（0200）	016022	2279	2735	3418	4102	4558	5013	5697	6381
9	Two ODUs（0120*2）	016024	2596	3115	3894	4673	5192	5712	6490	7269
10	Single ODU（0320）	020025	3374	4049	5061	6073	6748	7423	8435	9448
11		020028	4177	4653	5817	6980	7756	8531	9694	10858
12	Two ODUs（0200*2）	020032	4576	5491	6863	8236	9151	10066	11439	12812
13	3 ODUs （0160*3）	022032	4600	5520	6900	8280	9200	10120	11500	12880
14		023031	4881	5858	7322	8786	9763	10739	12203	13668
15	3 ODUs （0200*3）	026037	6542	7851	9814	11776	13085	14393	16356	18319
16		028034	6641	7969	9961	11953	13281	14610	16602	18594
17	Two ODUs（0320*2）	026037	6984	8381	10476	12571	13968	15365	17460	19555
18		028034	6771	8125	10156	12188	13542	14896	16927	18959
19	3 ODUs （0320*3）	037043	11364	13637	17046	20455	22728	25001	28410	31819

Table 2: For indoor water coil adopts a small enthalpy difference design, suitable for handling return air conditions (enthalpy difference between inlet and outlet air ≤ 30kJ/kg, or cooling capacity/air volume of indoor water coil ≤ 10W/CMH)

SN	Outdoor Specs	Indoor Specs	Coil surface air velocity m/s							
			1	1.2	1.5	1.8	2	2.2	2.5	2.8
1	Single ODU （0060）	012017	1187	1424	1780	2136	2374	2611	2967	3323
2	Single ODU （0080）	014021	1878	2254	2817	3380	3756	4132	4695	5258
3	Single ODU （0100）	016020	2023	2427	3034	3641	4046	4450	5057	5664
4	Single ODU （0080~0160）	014018	1554	1864	2331	2797	3107	3418	3884	4350
5		016016	1552	1862	2327	2793	3103	3413	3879	4344
6		016019	1943	2332	2915	3498	3887	4275	4858	5441
7		014022	2001	2402	3002	3603	4003	4403	5004	5604
8		016024	2596	3115	3894	4673	5192	5712	6490	7269
9	Single ODU（0080~0250） Two ODUs （0120*2）	020022	2870	3445	4306	5167	5741	6315	7176	8037
10		020028	4177	4653	5817	6980	7756	8531	9694	10858
11	Single ODU（0100~0160）	020024	3259	3911	4888	5866	6518	7169	8147	9125
12	Single ODU（0200~0320） Two ODUs （0120*2）	020025	3374	4049	5061	6073	6748	7423	8435	9448
13		022028	4089	4907	6134	7361	8178	8996	10223	11450
14		020031	4381	5258	6572	7887	8763	9639	10954	12268
15		022035	5395	6474	8092	9711	10790	11869	13487	15106
16	Single ODU（0160~0200） （0120*2）	022030	4718	5662	7078	8493	9437	10380	11796	13212
17	Single ODU（0200~0320） Two ODUs （0200*2）	023031	4881	5858	7322	8786	9763	10739	12203	13668
18	Single ODU （0320） Two ODUs（0200*2） 3 ODUs（0160*3）	026031	5579	6694	8368	10041	11157	12273	13946	15620
19		026035	6474	7769	9711	11653	12948	14243	16185	18127
20		023040	6644	7973	9966	11959	13288	14617	16610	18603
21		026040	7593	9112	11390	13668	15186	16705	18983	21261
22		026044	8489	10186	12733	15279	16977	18675	21221	23768
23	3 ODUs (0160*3~0200*3) Two ODUs （0320*2）	028034	6641	7969	9961	11953	13281	14610	16602	18594
24		030036	7535	9042	11303	13563	15070	16577	18838	21098
25		028038	7592	9110	11388	13666	15184	16703	18980	21258
26		030041	8794	10553	13191	15829	17588	19347	21985	24624
27		030046	10053	12064	15080	18096	20107	22117	25133	28149
28	3 ODUs (0160*3~0200*3)	037043	11364	13637	17046	20455	22728	25001	28410	31819
29	Two ODUs（0320*2）	037046	12996	15595	19494	23393	25992	28591	32490	36389
30	3 ODUs（0320*3）	037046	12287	14745	18431	22117	24575	27032	30718	34405
31		042047	13740	16488	20610	24732	27480	30228	34350	38472
32		042049	14412	17294	21618	25941	28823	31706	36029	40353
33		047049	16814	20176	25220	30265	33627	36990	42034	47078
34		047055	19116	22939	28674	34409	38232	42055	47790	53525

Performance Deviation

1. Outdoor Ambient Temperature and Supply Air Temperature Correction Factor

◆ When the ambient temperature or the unit's supply air temperature deviates significantly from the rated value, find the correction factor in the following table to correct the outdoor unit's cooling performance.

Outdoor Ambient Temperature °C	26	28	30	35	38	40	43	48
Cooling Correction Factor K1	1.13	1.1	1.08	1	0.96	0.94	0.89	0.85

Indoor unit evaporator outlet temperature °C	8	9	11	13	15	18	20
Cooling correction factor K2	0.74	0.78	0.86	0.95	1	1.12	1.2

Example: If the actual operating ambient temperature of an outdoor unit is 30°C, and the indoor unit requires a supply air temperature of 18°C, then the actual cooling capacity correction factor of the outdoor unit = K1 × K2 = 1.08 × 1.12 = 1.21

◆ When the length of the connecting pipe between the indoor and outdoor units is too long or the height difference between the two units is too large, the cooling capacity will be affected (refer to the attached table for the maximum pipe length). The correction coefficient of the cooling capacity is shown in the table below:

Amendment Factor	Total equivalent length of single-way horizontal interconnected pipes (meters)														
	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
0m	1.000	0.990	0.980	0.970	0.960	0.950	0.940	0.930	0.920	0.910	0.900	0.890	0.880	0.870	0.860
10m		0.970	0.960	0.950	0.940	0.930	0.920	0.910	0.900	0.890	0.875	0.870	0.866	0.862	0.858
20m				0.930	0.920	0.910	0.900	0.890	0.880	0.870	0.867	0.864	0.861	0.858	0.856
30m						0.900	0.883	0.877	0.871	0.865	0.862	0.860	0.858	0.856	0.854
40m								0.870	0.865	0.860	0.858	0.856	0.854	0.853	0.852
50m										0.855	0.854	0.853	0.852	0.851	0.850

2. Elbows and Oil Trap equivalent lengths

Connection pipe outer diameter, mm	9.52	12.7	15.88	19.05	22.23	28.6
Elbow, m	0.2	0.25	0.3	0.35	0.4	0.5
Oil trap, m	1.4	1.8	2	2.4	2.8	3.7

3. Indoor and outdoor conection pipe installation requirements

◆ It is recommended that the installation distance between the indoor and outdoor units not be too long to avoid affecting the cooling/heating capacity. If the indoor and outdoor units are installed with a long distance/height difference due to space limitations, the total equivalent length of connecting pipes for each model, the height difference between the indoor and outdoor units, and the total number of intermediate elbows should not exceed the following table. Note that for some models, when using long connecting pipes, the diameter of the connecting pipes needs to be expanded according to the following table and the corresponding amount of refrigerant needs to be added.

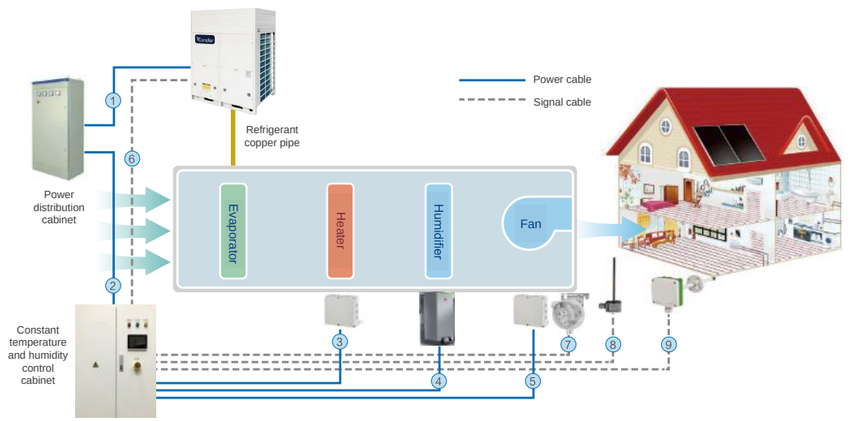
Outdoor Model	Connection Pipe Length/ Height Diff. Limits	Indoor Outdoor Connection Pipe Size		Addtional refrigerant charge volume when pipe length > 7.5 meters
		Liquid pipe	Gas pipe	
CTSAV0060CRCX	30m/20m	9.52	15.88	0.045
CTSAV0080CRCX	30m/20m	9.52	19.05	0.045
CTSAV0100DRCX	50m/20m	12.7	22.23	0.11
CTSAV0120CRCX	50m/20m	12.7	22.23	0.11
CTSAV0160CRCX	50m/20m	12.7	28.58	0.11
CTSAV0200CRCX	50m/20m	15.88	28.58	0.17
CTSAV0260DRCX	≤50m/50m	19.05	31.75	0.26
	50~90m/50m	19.05	31.75	0.26
	90~100m	19.05	31.75	0.26
CTSAV0320DRCX	≤50m/50m	19.05	31.75	0.26
	90m/50m	19.05	31.75	0.26
	90~100m/50m	22.23	31.75	0.36

4. Outdoor unit electrical specifications (single module or multi module units)

Outdoor Model	Power Supply		Power cord current recommendation, A	Outdoor power cord recommendation			Communication Cable
	Type	Voltage		Sectional area, mm2	pcs	Length, m	Sectional area, mm2
CTSAV0060CRCX	220V~50Hz	242/198V	40A	6		≤20	0.75-1.25 mm2 Polyethylene shielded twisted pair
				10		20~50	
CTSAV0080CRCX	380V 3N~50Hz	418/342V	25A	6	5 pcs	≤20	
				10		20~50	
CTSAV0100DRCX			30A	6		≤20	
				10		20~50	
CTSAV0120CRCX			30A	6		≤20	
				10		20~50	
CTSAV0160CRCX			40A	10		≤20	
				16		20~50	
CTSAV0200CRCX			60A	10		≤20	
				16		20~50	
CTSAV0260DRCX			65	16		≤20	
				16		20~50	
CTSAV0320DRCX			85	25		≤20	
				25		20~50	

Notes:
The recommended power cable specifications are based on the copper core cable specifications selected for single-core PVC insulated cables for fixed installation, laid in the air and with an ambient temperature of 40°C. If the on-site installation conditions change, please refer to the power cable specification provided by the cable manufacturer and consider compatible use as appropriate.

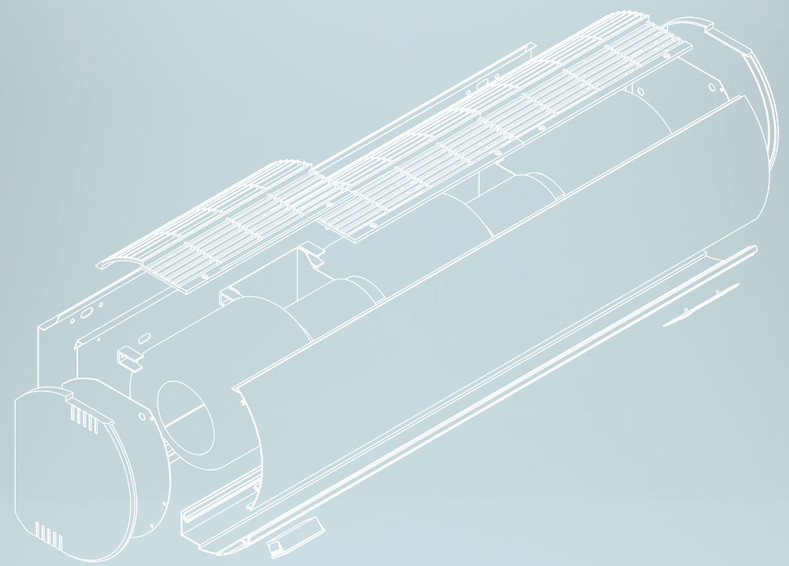
Electrical Schematic Diagram

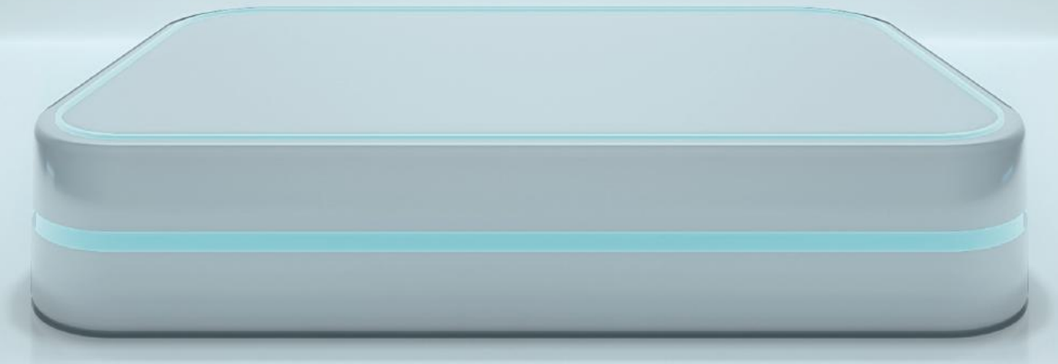


No.	Name
1	ODU power supply
2	IDU power supply
3	Electric heater power supply
4	Humidifier power supply
5	Motor power supply
6	Communication
7	Differential pressure and other protection
8	Air outlet temperature
9	Indoor temperature and humidity

Notes: 1. This diagram is intended to guide on-site wiring in the case of one ODU;
2. Power distribution cabinet, power for on-site wiring and signal cable are not provided with the unit.

Air Curtains Index





Powerful isolation, Efficient and energy saving

Air Curtains Functions

An air curtain is a device that uses a high-speed motor with cross flow or centrifugal blowers to create an “invisible air door.” It’s widely used in electronics, pharmaceuticals, food processing, and other industries to isolate indoor and outdoor air, maintaining stable temperature and humidity. It is also known as an air door or air barrier.

Dust-proof and Insect Prevention

Our air curtain generates a high-speed, powerful airflow that effectively blocks external dust, maintaining a clean indoor environment and deterring insects.

Energy Saving

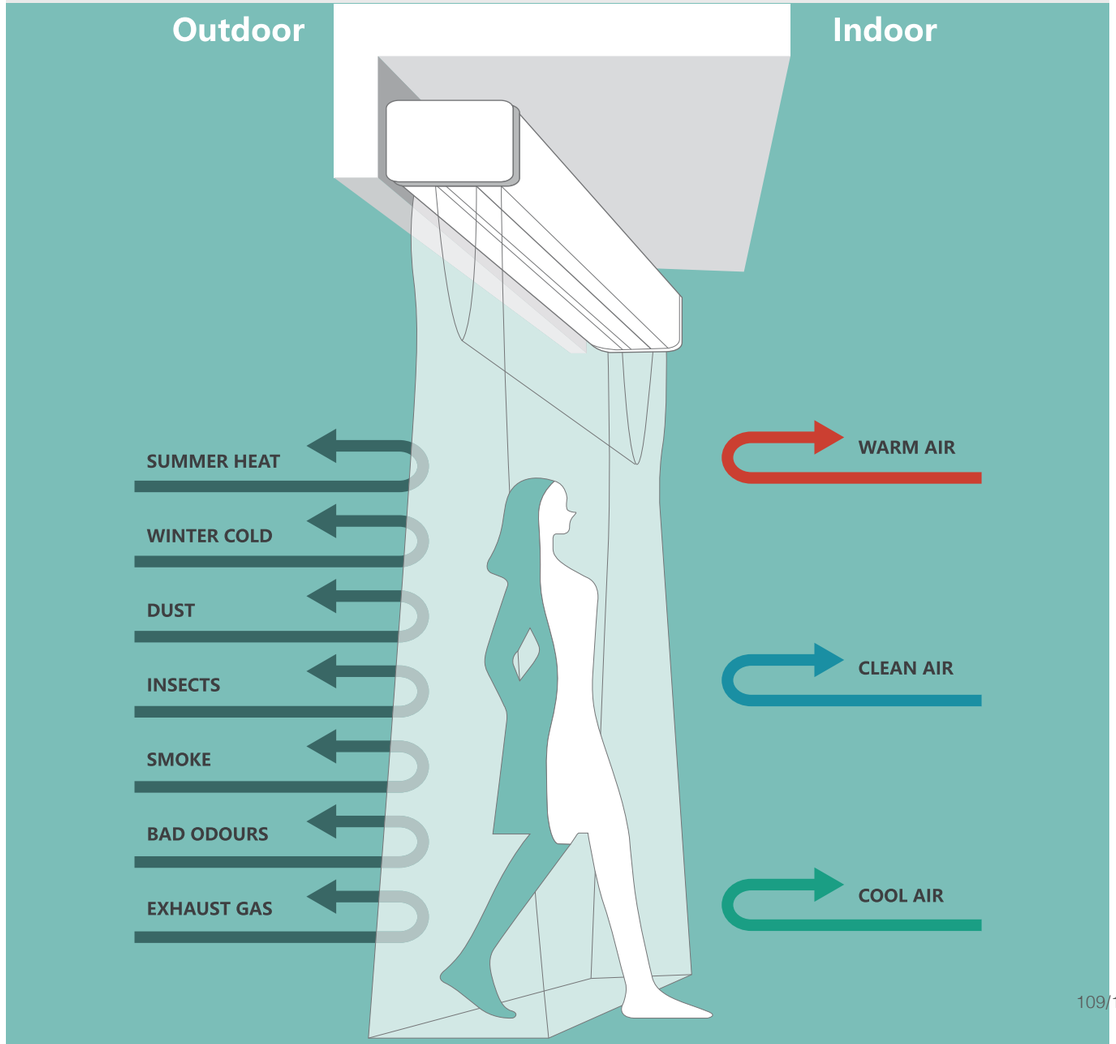
The air curtain maintains indoor temperatures by blocking the escape of cool or warm air, reducing air conditioning energy use. It’s ideal for high-traffic areas like stores and restaurants, promoting energy efficiency and consistent temperatures.

Odor Isolation

The air curtain’s vigorous airflow seals off outdoor odors, gases, and pollutants, preventing smells from kitchens, dining areas, chemical labs, and freezers from permeating indoor spaces, ensuring a fresh and pleasant environment.

Comfortable Heating(Optional Models)

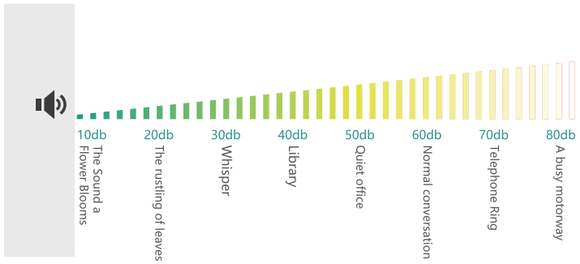
The air curtain maintains indoor temperatures by blocking the escape of cool or warm air, reducing air conditioning energy use. It’s ideal for high-traffic areas like stores and restaurants, promoting energy efficiency and consistent temperatures.



Provide you the unusual comfort experience

AIR CURTAIN WITH LOW NOISE AND QUIETER ENVIRONMENT

Our Air Curtains adopt non-isometric quiet impellers to avoid the maximum noise frequency area. Combined with scientific airflow design, it can reduce noise effectively under stable operation. The working noise is around 50 dB which is as quiet as the office.



Perfect unity of equipment and architecture

DOOR SWITCH TECHNOLOGY

Magnetic door switch is an additional switch device, which can be used for remote control and key switch type Air Curtains. The Air Curtain will start automatically when the door opened and shut down automatically after the door is closed.
Theodoor Air Curtain can be combined with weak or strong electricity Door Switch, and it is more convenient and energy-saving.

Intelligence

Intelligent induction design can start automatically when the door opened and shut down automatically after the door is closed.

Energy-saving

Timely opening, reduce energy consumption, energy saving.

Comfort

Automatic control, practical and convenience, more humanize.

Powerful engine, stronger performance

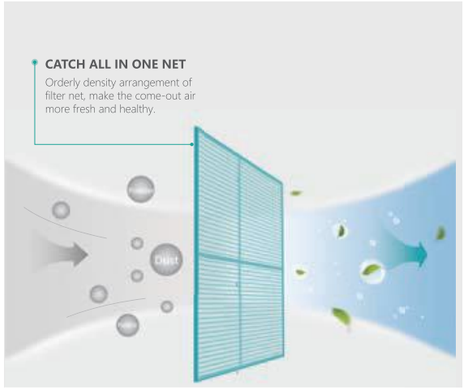
DC MOTOR

Generally used for the equipment to start and control speed at high performance requirements, which need high manufacturing cost, have good performance and good adaptability for humidity and corrosion environment.

High density filter net for dustproof effectively

FILTER NET

The air inlet of the air curtain is provided with high density filter net, filtering air, blocking dust, bacteria and other unclean objects.



S7 NEW AIR CURTAIN

Application: for high grade restaurants, hotels, clubs, shops and commercial buildings etc.

NEW WORKMANSHIP, SHOCK RESISTANCE

3N design (new air duct, new turbine fan, and new connection process of motor), enable the product is shock resistance. Provide safety and reliability during transportation and long term use.

EVENLY AIR DELIVERY, HIGH PERFORMANCE

Compact size, powerful performance. Apply centrifugal turbine fans which produce high air velocity and low noise. New design turbine fans increase the air volume and air pressure effectively. Combine with pure copper high performance motor, the product can be running for 8000 hours continuous.

ALUMINUM ALLOY ELEGANT DESIGN

Apply aluminum cover combine with ABS, compact and elegant, light and durable, never rusty.

EASY SPEEDS CONTROL

Special air guide plate design, with adjustable air direction provide thicker air barrier. Available with new remote control and key switch; with selectable high and lower air velocity.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3.2M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)		Air volume (m³/h)		Noise (dB)		Power (W)		Net weight (kg)	Unit size (mm)
				H	L	H	L	H	L	H	L		
CA-3209-L/Y	900	220-240	50	14.5	11.5	950	750	≤51	≤48	200	170	12	900x198x215
CA-3210-L/Y	1000	220-240	50	14.5	11.5	1050	850	≤51	≤48	210	180	12.5	1000x198x215
CA-3212-L/Y	1200	220-240	50	14.5	11.5	1350	1050	≤52	≤49	260	230	14.5	1200x198x215
CA-3215-L/Y	1500	220-240	50	14.5	11.5	1700	1350	≤54	≤52	330	300	18	1500x198x215
CA-3218-L/Y	1800	220-240	50	14.5	11.5	2050	1600	≤56	≤53	390	360	21.5	1800x198x215
CA-3220-L/Y	2000	220-240	50	14.5	11.5	2250	1750	≤57	≤55	400	370	24	2000x198x215

S5 SERIES ALUMINUM

Application: for office, high grade restaurants, hotels and commercial buildings etc.

FASHION DESIGN

Outside cover without screw, patent design of arc shape appearance and thinner side cover.

LUXURY MATERIALS

By aluminum cover body and combine with high precise ABS, never rusty and easy disassembly; Low noise centrifugal turbine fan, high velocity motor can operate continuously 5000h without failure.

SMART OPERATION

Air inlet from top design, with high air pressure and adjustable air direction. Available with remote control and key switch; with selectable high and lower air velocity.

TECHNICAL SPECIFICATIONS

(Mounting height： 3.5 - 4M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-3509-L/Y S5	900	220-240	50/60	16	1100	52	230	13.5	900X220X240
CA-3510-L/Y S5	1000	220-240	50/60	16	1200	52	250	14	1000X220X240
CA-3512-L/Y S5	1200	220-240	50/60	16	1500	53	290	16	1200X220X240
CA-3515-L/Y S5	1500	220-240	50/60	16	1900	55	380	20.5	1500X220X240
CA-3518-L/Y S5	1800	220-240	50/60	16	2280	57	450	24	1800X220X240
CA-3520-L/Y S5	2000	220-240	50/60	16	2520	58	470	27.5	2000X220X240
CA-4009-L/Y S5	900	220-240	50/60	20	1400	57	300	13.5	900X220X240
CA-4012-L/Y S5	1200	220-240	50/60	20	1900	58	400	16	1200X220X240
CA-4015-L/Y S5	1500	220-240	50/60	20	2300	61	500	20.5	1500X220X240

5G SERIES

Application: for the door of store, restaurant, retail shop, sports center and station etc.

Aluminum shell | High efficient motor | Quiet cross flow fan | Adjustable air direction | Remote control | Key switch

LUXURY MATERIALS

High efficient motor with thermal protector can operate continuously 5000h without failure. Higher air volume with superior performance.

EASY OPERATION

Special design of air deflection vane enables to adjust the air direction easily. Two speeds controlled by the remote control or key switch.

CHARMING DESIGN

Silver aluminum sandblast shell, 3D shape design, newly aluminum bar air intake panel.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3M)

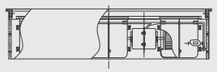
Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-1209T5G	900	220-240	50/60	11	1400	55	160	10	900X190X225
CA-1212T5G	1200	220-240	50/60	11	1900	56	200	12.5	1200X190X225
CA-1215T5G	1500	220-240	50/60	11	2500	57	230	15.5	1500X190X225
CA-1218T5G	1800	220-240	50/60	11	3200	58	300	18	1800X190X225
CA-1220T5G	2000	220-240	50/60	11	3600	59	350	20	2000X190X225

CEILING WIND SERIES

Application: for high-grade glass door which can not install horizontally, or the vertical side without enough space and other special environments.

Side view

Front view



EASY CLEAN AND FIREPROOF

Full steel cabinet and stainless steel air inlet covers, rust-proof and easy clean;

EASY OPERATION

Selectable high and lower air velocity controlled by remote control or key switch.

RECESSED IN CEILING DESIGN

Recessed in ceiling or hang on ceiling type design, it's for special situations where the glass door is unable or lacks of enough space for side installation.

Apply high velocity motor, centrifugal turbine fan and scientific air duct design; powerful air pressure and lower noise operation;

TECHNICAL SPECIFICATIONS

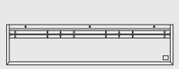
(Mounting height： 3.5-4M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-3509CS	900	220	50/60	16	1100	49	230	17	900X235X320
CA-3512CS	1200	220	50/60	16	1500	50	290	22	1200X235X320
CA-3515CS	1500	220	50/60	16	1900	52	380	27	1500X235X320
CA-4009CS	900	220	50/60	20	1400	54	300	17	900X235X320
CA-4012CS	1200	220	50/60	20	1900	55	400	22	1200X235X320
CA-4015CS	1500	220	50/60	20	2300	58	500	27	1500X235X320

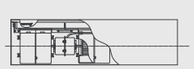
SILVER EASE WIND SERIES

Application: for waiting rooms, food factories, hotel kitchens and bakeries etc.

Back view



Front view



EASY CLEAN AND FIREPROOF

Stainless steel (304) covers, stronger and rust-proof, easy clean;

EASY OPERATION

Air inlet from top design, with special air deflector design and air direction is adjustable.Selectable high and lower air velocity controlled by remote control or key switch.

LUXURY MATERIALS

Low noise centrifugal turbine fan, high velocity motor and apply quality bearing. Create powerful air pressure and durable operation.

TECHNICAL SPECIFICATIONS

(Mounting height： 3.5M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-3509S-L	900	220	50/60	16	1100	52	230	14	900X215X240
CA-3512S-L	1200	220	50/60	16	1500	53	290	18.5	1200X215X240
CA-3515S-L	1500	220	50/60	16	1900	55	380	25	1500X215X240
CA-3518S-L	1800	220	50/60	16	2280	57	450	30	1800X215X240

Air Curtains

LIGHTWEIGHT & FASHION DESIGN
Patent design of arc shape appearance, Lightweight compact & fashion design. By aluminum cover and combine with high precise ABS, never rusty and lasting clean. Suitable for glass, marble doorway.

EASY OPERATION
Special design of air deflection vane enables to adjust the air direction easily. Two speeds controlled by the remote control or key switch.

LUXURY MATERIALS
Pure copper high speed motor, stable performance, running for more than 5000 hours without failure.

LOW NOISE OPERATION
Adopt non-isometric quiet impellers to avoid the maximum noise frequency area. Combined with scientific airflow design, it can reduce noise effectively under stable operation.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-1209T2	900	220	50	11	1400	≤57	160	10.5	900X190X205
CA-1212T2	1200	220	50	11	1900	≤58	200	13	1200X190X205
CA-1215T2	1500	220	50	11	2500	≤59	230	16	1500X190X205
CA-1218T2	1800	220	50	11	3200	≤60	300	18.5	1800X190X205
CA-1209T2/Y	900	220	50	11	1400	≤57	160	10.5	900X190X205
CA-1212T2/Y	1200	220	50	11	1900	≤58	200	13	1200X190X205
CA-1215T2/Y	1500	220	50	11	2500	≤59	230	16	1500X190X205
CA-1218T2/Y	1800	220	50	11	3200	≤60	300	18.5	1800X190X205

COMPACT & SLIM STRUCTURE
Full metal arc shape, spray powder and anti-rust, easy to install and clean.

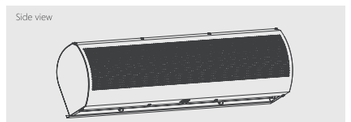
EASY OPERATION
Optional with remote control or switch, with high and low speed control.

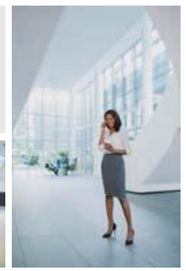
STABLE PERFORMANCE
Cross-flow fan with low noise operation, working long time without failure.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-3009F/Y	900	220	50	8-10	1250-1100	53	100	7	900X200X156
CA-3012F/Y	1200	220	50	8-10	1700-1550	54	140	8.2	1200X200X156
CA-3015F/Y	1500	220	50	8-10	2200-1950	55	180	9.5	1500X200X156
CA-3018F/Y	1800	220	50	8-10	2650-2400	56	200	11	1800X200X156





REFRIGERATOR DOOR CENTRIFUGAL SERIES AIR CURTAIN

Application: for the door of food products factory, cold storage room, warehouse etc.

TECHNICAL SPECIFICATIONS

(Mounting height： 3 - 4M)

Model	Voltage (V~)	Frequency (Hz)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-2512LK	380	50	1300	70	600	21.5	1600x420x370
CA-2515LK	380	50	1550	70	670	23	1900x420x370
CA-2518LK	380	50	1950	71	740	24.5	2200x420x370
CA-2520LK	380	50	2100	72	800	25.5	2400x420x370
CA-2525LK	380	50	2300	72	900	27	2900x420x370
CA-2815LK	380	50	2600	73	1000	27.5	1940x450x380
CA-2818LK	380	50	3000	73	1170	28.5	2240x450x380
CA-2820LK	380	50	3300	74	1280	30	2440x450x380
CA-2825LK	380	50	3700	74	1400	32.5	2940x450x380

POWERFUL AIR-FLOW
Optimized fan wheel with powerful air volume and low noise performance.

HIGH PROTECTION CLASS
Professional motor with IP54 protection class.

EASY CLEAN & FIREPROOF
Stainless steel (#304) outer cover and metal blower, which is easy to clean and has high performance of fire protection.

STABLE PERFORMANCE
Reliable quality performance operates 5000 hours continuously without failure.

REFRIGERATION STORAGE TYPE

Application: for the door of food products factory, cold storage room, parking lot etc.

EASY CLEAN AND OPERATION
Square metal cabinet design with honeycomb front panel, which is easy installation & maintenance.

LIGHTWEIGHT & SMART APPEARANCE
Full steel cabinet, lightweight compact body, about 40% lighter than the normal air curtain.

HIGH AIR VELOCITY AND DURABLE
Optimized air conditioner motor and quiet wind wheel, it has high air volume and low noise performance.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-1209SK	900	220	50/60	12	1530	57	160	8.5	900x180x180
CA-1212SK	1200	220	50/60	12	2070	58	200	11	1200x180x180
CA-1215SK	1500	220	50/60	12	2730	59	230	12	1500x180x180

Full steel casing | High efficient motor | Adjustable air direction | Centrifugal fan

INDUSTRIAL CENTRIFUGAL SERIES AIR CURTAIN

Application: installation in plant, cold storage, garage, workshop and other industrial use.

FINE WORKMANSHIP

The square reinforced structure is made from galvanized steel with powder coated, sturdy and durable which is never being deformed.

POWERFUL AIRFLOW

Centrifugal Metal fan blower (Fan diameter Φ160) supply powerful airflow. Large air outlet and higher air velocity reach up to 25m/s create more sufficient air volume.

STABLE PERFORMANCE

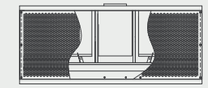
The centrifugal turbine fan is made from steel which is safe and durable. The high velocity powerful motor can meet the higher installation and special environments.

TECHNICAL SPECIFICATIONS (Mounting height : 6 - 8M)

Model	Unit (mm)	Frequency (Hz)	Voltage (V~)	Power (W)	Air volume (m³/h)	Air velocity (m/s)	Noise (dB)	Net weight (kg)	Unit size (mm)
CA-6009A	900	50	220/380	950	3760	25	66	31.5	900x306x352
CA-6010A	1000	50	220/380	1000	4150	25	66	32.5	1000x306x352
CA-6012A	1200	50	220/380	1550	5640	25	69	45	1200x306x352
CA-6015A	1500	50	220/380	1950	7520	25	70	55.5	1500x306x352
CA-6018A	1800	50	220/380	2000	8500	25	70	61	1800x306x352
CA-6020A	2000	50	220/380	2450	9400	25	72	71.5	2000x306x352
CA-6509A	900	50	380	1400	4510	30	70	32.5	900x306x352
CA-6510A	1000	50	380	1450	4950	30	70	36	1000x306x352
CA-6512A	1200	50	380	2300	6760	30	71	47	1200x306x352
CA-6515A	1500	50	380	2800	9000	30	72	57.5	1500x306x352
CA-6518A	1800	50	380	2900	10000	30	73	63	1800x306x352
CA-6520A	2000	50	380	3700	11200	30	74	73.5	2000x306x352

Side view

Front view



POWERFUL AND SMOOTH AIRFLOW

Adopt quiet aluminum alloy wind wheel and scientific airflow design; it has strong and powerful air volume.

STURDY AND DURABLE

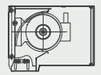
Galvanized steel with powder coated, sturdy and durable which is never being deformed.

Optimized high velocity powerful motor, can meet the higher installation and special environments.

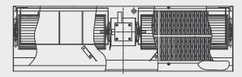
TECHNICAL SPECIFICATIONS (Mounting height : 4.5 - 6M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CA-1609S	900	220	50/60	16.5	2900	57	350	26.5	900X260X310
CA-1612S	1200	220	50/60	16.5	3890	58	500	31.5	1200X260X310
CA-1615S	1500	220	50/60	16.5	4950	59	750	39.5	1500X260X310
CA-2009S	900	380	50/60	22	4700	72	720	29	900X338X366
CA-2012S	1200	380	50/60	22	7350	74	1050	35	1200X338X366

Side view



Front view



INSULATION EXPLOSION-PROOF

Protection level: IP55; Explosion-proof standard: Exd II BT4; Insulation level: F.

STURDY AND DURABLE

Galvanized steel with powder coated, sturdy and durable which is never being deformed.

POWERFUL AIRFLOW

Optimized high velocity powerful motor runs stably.

TECHNICAL SPECIFICATIONS (Mounting height : 3 - 3.5M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Air velocity (m/s)	Air volume (m³/h)	Noise (dB)	Power (W)	Net weight (kg)	Unit size (mm)
CAB-1509S	900	3N 380	50/60	14	2800	62	270	25.5	970X265X352
CAB-1512S	1200	3N 380	50/60	14	3900	64	350	31	1270X265X352
CAB-1515S	1500	3N 380	50/60	14	5000	65	430	38	1500X352X265

6G NEW HEATING SERIES

Application: for high grade restaurants, hotels, exclusive shops and commercial buildings etc.

HIGH PERFORMANCE AND EFFICIENCY

Apply new type cross-flow fan design, has the characteristic of evenly air outlet, high air volume and low noise. Heating function can be selected in 3 power levels. The PTC heater is uncharged, high performance, safe, prompt temperature rise, low wind resistance and long using life.

EXCELLENT WORKMANSHIP

The cover and air outlet is made from aluminum, has the advantage of fire resistance and never being deformed. Optimized air conditioner motor, reliable performance can operate continuously 5000h without failure.

EASY CONTROL

By wireless remote control, it can switch cool to heating function, adjust air speed easily.

SAFE AND RELIABLE

Triple Security Protection: Thermal protector, varistor and fuse protection; Automatic postpone safety protection when power heating off; *Large power needs to install a control box.

TECHNICAL SPECIFICATIONS

(Mounting height： 3-4M)

Model	Unit (mm)	Frequency (Hz)	Voltage (V~)	Motor power (W)		PTC heater Power (kW)			Rising temp (K)	Air volum (m^3/h)		Air velocity (m/s)		Noise (dB)		Net weight (kg)
				H	L	H	M	L		H	L	H	L	H	L	
CARM-1209T6G-D/Y	900x218 x247	50	220	250	220	8	5.5	2.5	35-40	1300	1150	9	8	≤61	≤59	14
CARM-1212T6G-D/Y	1200 x218 x247	50	220	290	260	10	7	3.5	35-40	1900	1750	9	8	≤62	≤60	17.5
CARM-1209T6G-3D/Y	900x218 x247	50	380	250	220	8	5.5	2.5	35-40	1300	1150	9	8	≤61	≤59	14
CARM-1212T6G-3D/Y	1200 x218 x247	50	380	290	260	10	7	3.5	35-40	1950	1750	9	8	≤62	≤60	17.5
CARM-1215T6G-3D/Y	1500 x218 x247	50	380	350	320	12	8	4	35-40	2600	2300	9	8	≤63	≤61	21
CARM-1218T6G-3D/Y	1800 x218 x247	50	380	500	470	16	10	5	35-40	2600	2300	9	8	≤64	≤62	27
CARM-1220T6G-3D/Y	2000 x218 x247	50	380	580	450	16	10	5	35-40	2900	2600	9	8	≤65	≤63	29

5G HEATING AIR CURTAIN

Application: for station, gymnasium, shop etc.

CLASSICAL + LUXURY

Classical & Luxurious design of aluminum alloy outer cover with sandblast Silver; 3D appearance; new stainless strip inlet panel; Lasting clean body.

SAFE & RELIABLE

Triple Security Protection: Thermal protector, varistor and fuse protection. Automatic postpone safety protection when power heating off.

EASY CONTROL

By wireless remote control, it can switch cool to heating function, adjust air speed easily.

HIGH PERFORMANCE AND EFFICIENCY

Adopt non-isometric quiet impellers, has the characteristic of evenly air outlet, high air volume and low noise. Heating function can be selected in 3 power levels. The PTC heater is uncharged, high performance, safe, prompt temperature rise, low wind resistance and long using life.

TECHNICAL SPECIFICATIONS

(Mounting height： 2.5 - 3M)

Model	Unit (mm)	Voltage (V~)	Frequency (Hz)	Motor power (W)		PTC heater Power (kW)			Air velocity (m/s)		Air volume (m^3/h)		Rising temp (K)	Noise (dB)	Net weight (kg)
				H	L	H	M	L	H	L	H	L			
CARM-1209S-3D/Y5G	900×190×260	380	50	160	110	6	4	2	9.5	8.5	1200	1000	35-45	≤57	13.5
CARM-1212S-3D/Y5G	1200×190×260	380	50	200	150	8	5	3	9.5	8.5	1700	1500	35-45	≤58	16
CARM-1215S-3D/Y5G	1500×190×260	380	50	230	180	10	7	3	9.5	8.5	2200	1900	35-45	≤59	18.5
CARM-1218S-3D/Y5G	1800×190×260	380	50	300	250	12	8	4	9.5	8.5	2700	2400	35-45	≤60	24
CARM-1209S-D/Y5G	900×190×260	220	50	160	110	6	4	2	9.5	8.5	1200	1000	35-45	≤57	13.5
CARM-1212S-D/Y5G	1200×190×260	220	50	200	150	8	5	3	9.5	8.5	1700	1500	35-45	≤58	16
CARM-1215S-D/Y5G	1500×190×260	220	50	230	180	10	7	3	9.5	8.5	2200	1900	35-45	≤59	18.5

Air Curtains

WATER WARM WIND

Two speeds with remote control

Full metal body with compact structure, elegant design.

TECHNICAL SPECIFICATIONS

Model	Power (V/Hz)	Input power (w)	Air speed (m/s) H	Air speed (m/s) L	Air volume (m³/h) H	Air volume (m³/h) L	Noise level (dB)	Net weight (kg)	SIZE (mm)
CARM-1210-S/Y	220/50	180/130	9	7	1500	1150	<57	18	1000x227x310
CARM-1215-S/Y	220/50	230/180	9	7	2250	1750	<59	28	1500x227x310
CARM-1220-S/Y	220/50	350/300	9	7	3250	2550	<61	34	2000x227x310

Model		RM-1210-S/Y				RM-1215-S/Y				RM-1220-S/Y			
Temperature of water Tw1/Tw2 = 90-70℃	Tp1 (℃)	5	10	15	20	5	10	15	20	5	10	15	20
	PT (kW)	9	9	9	9	13	13	13	13	17	17	17	17
	QW (L/H)	400	400	400	400	600	600	600	600	800	800	800	800
	Δpw (kPa)	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0
	Tp2 (℃)	31	36	41	46	31	36	41	46	31	36	41	46
Temperature of water Tw1/Tw2 = 80-60℃	Tp1 (℃)	5	10	15	20	5	10	15	20	5	10	15	20
	PT (kW)	8	8	8	8	12	12	12	12	16	16	16	16
	QW (L/H)	370	370	370	370	570	570	570	570	750	750	750	750
	Δpw (kPa)	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0
	Tp2 (℃)	28	33	38	43	28	33	38	43	28	33	38	43
Temperature of water Tw1/Tw2 = 70-5	Tp1 (℃)	5	10	15	20	5	10	15	20	5	10	15	20
	PT (kW)	7	7	7	7	13	13	13	13	15	15	15	15
	QW (L/H)	340	340	340	340	570	540	540	540	700	700	700	700
	Δpw (kPa)	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0
	Tp2 (℃)	25	30	35	40	25	30	35	40	25	30	35	40

Hot water inlet/outlet from top

CENTRIFUGAL HIGH POWER WATER HEATING AIR CURTAIN

Suitable Occasions: Factory warehouses, Office buildings, Large workshops, High speed rail stations and other special occasions.

Reliable Structure

Centrifugal fan blower with low noise motor, produce powerful air velocity and long time running without failure.

High Efficiency

Multi-layer compound fan coil, with low consumption and high heat dissipation. Safety and reliable performance.

Humanized Design

Preset left and right side 2 ways water inlets, thus, can meet different mounting occasion.

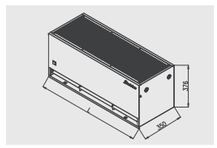
Easy Control

Adopting button switch, with high & low air velocity.

TECHNICAL SPECIFICATIONS

(Mounting height： 4-5M)

Model	Voltage (V~)	Noise (dB)	Power (w)	Air velocity (m/s) H	Air velocity (m/s) L	Air volume (m³/h) H	Air volume (m³/h) L	Heat dispersal capacity (Kw) 1	2	3	Net weight (kg)	Unit size (mm)
CARM-5009A-S	220	≤64	630	21	17	2750	2320	28	23.5	21	36	900x351x376
CARM-5012A-S	220	≤66	850	21	17	3500	2920	36	30	27	43	1200x351x376
CARM-5015A-S	220	≤68	1050	21	17	4250	3550	44	37	33	51.5	1500x351x376
CARM-5018A-S	220	≤70	1300	21	17	5000	4150	52	43.5	39	58.5	1800x351x376



EXCLUSIVE LUXURY

Brand new vertical cabinet body; Stainless steel cover; patented design; Back wind inlet and Side wind outlet.

EXCLUSIVE PERFORMANCE, HIGH EFFICIENT

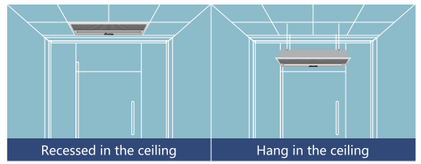
It is available to customize the length as per the mounting height.

VERCIAL TYPE AIR CURTAIN / HEATING AIR CURTAIN

Suitable for malls, workshops, garage entrance and other places where are unable to install above the entrance.

TECHNICAL SPECIFICATIONS

Model	Voltage / Frequency (V /Hz)	Height of cool air section (m)	Height of heated air section (m)	Power (kW) Motor	Power (kW) PTC	Air velocity of cool air section (m/s)	Air velocity of heated air section (m/s)	Air volume (m³/h)	Noise (dB)	Size (L*W*H) (mm)	Remark
CFM-LC2000S	220/50	2	0	0.85	/	18	0	6790	≤64	480x330x2000	cool air only
CFM-LC2500S	220/50	2.5	0	1.1	/	18	0	8450	≤65	480x330x2500	cool air only
CFM-LC3000S	220/50	3	0	1.25	/	18	0	10230	≤67	480x330x3000	cool air only
CFM-LC3500S	220/50	3.5	0	1.55	/	18	0	11860	≤70	480x330x3500	cool air only
CFM-LC4000S	220/50	4	0	1.7	/	18	0	13580	≤73	480x330x4000	cool air only
CFM-LC4500S	220/50	4.5	0	2.1	/	18	0	15280	≤75	480x330x4500	cool air only
CRM-LC2000S-3D	380/50	0	2	0.85	24	0	11	4150	≤60	480x330x2000	2.0m heated
CRM-LC2500S-3D	380/50	0	2.5	1.1	24	0	11	4500	≤61	480x330x2500	2.5m heated
CRM-LC3000S-3D	380/50	1	2	1.25	24	11	11	6250	≤63	480x330x3000	2.0m heated+1.0m cool air
CRM-LC3500S-3D	380/50	1.5	2	1.55	24	11	11	7250	≤67	480x330x3500	2.0m heated+1.5m cool air
CRM-LC4000S-3D	380/50	2	2	1.7	24	11	11	8300	≤70	480x330x4000	2.0m heated+2.0m cool air
CRM-LC4500S-3D	380/50	3	2	2.1	24	11	11	8500	≤72	480x330x4500	2.0m heated+1.5m+1m cool air



CEILING WIND HEATING AIR CURTAIN

RECESSED DESIGN

It is available to insert into the ceiling or hanging design. It's for special situations where the glass door is unable or lacks of enough space for side installation.

Full metal outer cover and aluminum alloy air inlet panel; It is environmental-friendly and easy to be cleaned, besides, has high performance for fireproof.

HIGH EFFICIENT AND PERFORMANCE

High efficient of heat conversion, non-electric PTC Heater and fast temperature rising.Optimized motor, tangential fan wheel and technical airflow design; Low noise and long life operation.

SAFE & RELIABLE

Triplicate Security Protection: Thermal protector, varistor and fuse protection; Automatic postpone safety protection when power heating off.

TECHNICAL SPECIFICATIONS

(Mounting height： 3M~4M)

Model	Voltage (V~)	Frequency (Hz)	Power (w)		PTC heater Power (kW) H	M	L	Air velocity (m/s) H	L	Air volume (m³/h) H	L	Rising temp (K)	Noise (dB)	Net weight (kg)	Unit size (mm)
CARM-1209CS-3D/Y	380	50	160	110	8	5.5	2.5	10	8	1200	900	35-45	≤57	19	900X235x320
CARM-1212CS-3D/Y	380	50	200	150	10	7	3.5	10	8	1700	1300	35-45	≤58	22	1200x235x320
CARM-1215CS-3D/Y	380	50	230	180	12	8	4	10	8	2200	1650	35-45	≤59	25	1500x235x320

MOTORIZED 2/3 WAYS VALVES

Collection From Our Selected Certified Suppliers — Premium Brands ★★★

CDYH01-A Series

FCU Motorized Valves

Connection size: DN15 DN20 DN25 two-way/three-way
Connection method: Internal thread G1/2" G3/4" G1" (NPT customizable)
Medium range: Cold and hot water or 30% ethylene glycol solution 2°C~95°C
Valve body pressure: 2.0Mpa
Working voltage: AC24V / AC110V /AC220V 50/60Hz
Motor power consumption: 6.5VA
Drive mode: Power on to open, power off to close, spring automatic reset
Running time: Opening valve 18 seconds, closing valve 7 seconds

CDYH5168 Series

FCU Motorized Valves (Specially for Apartment)

Connection Size: DN15 DN20 DN25 DN32
Two-way Connection Method: Internal Thread G1/2" G3/4" G1" G1-1/4" (NPT customizable)

Medium Range: Cold and hot water or 30% ethylene glycol solution 2°C~95°C
Valve Body Pressure: 2.0Mpa
Working Voltage: AC24V/ AC110V / AC220V 50/60Hz
Motor Power Consumption: 6.5VA (Control in place, motor power-off protection function)
Drive Mode: Three-wire two-control (Three-wire one-control customizable)
Running Time: 30 seconds for opening valve, 30 seconds for closing valve

CDYH4030 Series

FCU Motorized Valves

Connection Caliber: Medium 22 Medium 28
Two-way/Three-way
Connection Method: Card Sleeve Interface 7/8" 1-1/8"
Media Range: Cold and hot water or 30% ethylene glycol solution 2°C~95°C
Valve Body Pressure: 1.6Mpa
Working Voltage: AC24V/ AC110V/ AC220V 50/60Hz
Motor Power Consumption: 6.5VA
Drive Mode: Power on to open, power off to close, spring automatic reset
Operating Time: Opening valve 18 seconds, closing valve 7 seconds

CDYH5188 Series

FCU Motorized Valves

Connection Caliber: DN20 DN25 Two-way
Connection Method: Internal thread G3/4" G1" (NPT customizable)
Medium Range: Cold and hot water or 30% glycol solution 2°C~95°C
Valve Body Pressure: 2.0Mpa
Working Voltage: AC24V/ AC110V / AC220V 50/60Hz
Motor Power Consumption: 6.5VA (Control in place, motor power-off protection function)
Drive Mode: Three-wire two-control (Three-wire one-control customizable)
Operating Time: 30 seconds for opening valve, 30 seconds for closing valve

Connection size: DN15 DN20 DN25 two-way/three-way
Connection method: Internal thread G1/2" G3/4" G1" (NPT customizable)
Medium range: Cold and hot water or 30% glycol solution 2°C~95°C
Valve body pressure: 2.0Mpa
Working voltage: AC24V/ AC110V/ AC220V 50/60Hz
Motor power consumption: 6.5VA
Drive mode: Power on to open, power off to close, spring automatic reset
Operating time: Opening valve 18 seconds, closing valve 7 seconds

CDYH02 Series

FCU Motorized Valves

Connection Size: G5/8, G3/4, G7/8 Two-way/Three-way
Connection Method: Internal thread G5/8", G3/4", G7/8"

Medium Range: Cold and hot water or 30% glycol solution 2°C~95°C
Valve Body Pressure: 2.0Mpa
Working Voltage: AC24V/ AC110V / AC220V 50/60Hz
Motor Power Consumption: 6.5VA
Drive Mode: Power on to open, power off to close, spring automatic reset
Running Time: Opening valve 18 seconds, closing valve 7 seconds

CDYH5016 Series

FCU Motorized Valves

Connection Diameter: DN15 DN20 DN25 Two-way
Connection Method: Internal thread G1/2" G3/4" G1"

(NPT can be customized)

Medium Range: Cold and hot water or 30% ethylene glycol solution 2°C~95°C
Valve Body Pressure: 1.6Mpa
Working Voltage: AC24V/ AC110V/AC220V 50/60Hz
Motor Power Consumption: 6.5VA (Control in place, motor power-off protection function)
Drive Mode: Three-wire two-control (customizable three-wire one-control)
Operating Time: Opening valve 20 seconds, Closing valve 20 seconds

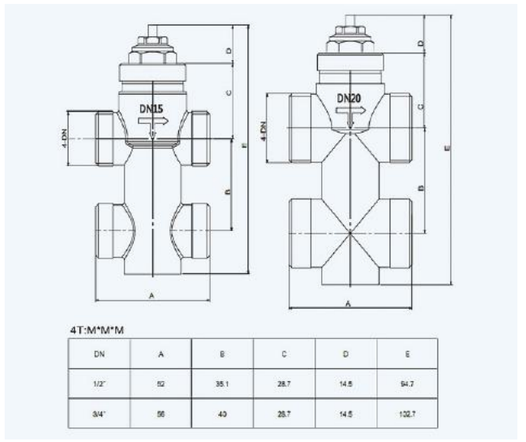
CJD-9001 Series
4 Way Valve Body (Combination Type)

CJD-9001 Series
4 Way Valve Body & Motorized Actuator

CJD-9003 / CJD-9003A
4 Way Valve Body (Unibody)

Basic Specifications

Material: Hpb57-3
Copper Parts: 57-3 Brass
Specifications: 1/2", 3/4", 1"
Temperature: 5-100°C
Equipped with: Stainless steel spring
Sealing element: EPDM
Maximum working pressure: 10 Bar
Maximum pressure difference: 1 Bar
Operating medium: Water
Function: Automatic start and stop with actuator
Performance characteristics: Small valve body, easy installation



4T:M*M*M

DN	A	B	C	D	E
1/2"	52	35.1	28.7	14.5	94.7
3/4"	56	40	28.7	14.5	102.7

MOTORIZED 2/3 WAYS VALVES

CHVC Series

2 Way

3 Way

Series Introduction

The product is applied in the fields of HVAC cihlled water system, chemical industry, petroleum, mining, electric power, food, pharmaceuticals, water supply and drainage, municipal, and mechanical equipment systems for liquid flow and temperature regulation control.

General Specifications

Valve body material: GGG40 ductile iron, 304 stainless steel valve stem, EPDM seal
Connection diameter: DN15~DN450, two-way/three-way (diversion/confluence)
Connection method: Flange connection
Medium range: Cold and hot water or 30% ethylene glycol solution, 0°C~95°C
Flow characteristics: 0~30% linear, 30~100% equal percentage
Valve leakage rate: Less than 0~0.05% of KVS value
Valve body pressure: 1.6Mpa/2.5Mpa
Drive material: Die-cast ADC12 aluminum bracket, steel gears, PC shell
Operating voltage: AC24V/DC24V/AC220V, 50/60Hz
Motor power consumption: 6.5VA / 16VA (control in place, motor power-off protection function)
Control method: Intelligent (0~10V/4~20mA), switch type
Output torque: 1500N/2500N/4000N/5000N/10000N/16000N
Drive stroke: 1500N stroke 20mm, 2500N/4000N/5000N stroke 40mm, 10000N/16000N stroke 60mm/100mm optional

Installation method: Clamping quick connection installation (compatible with Siemens actuators)

STATIC BALANCING VALVES

Series Introduction

The CYHV series static balancing valve is a static hydraulic balancing valve with a straight flow valve body structure, which can reasonably distribute the flow and effectively solve the problem of uneven room temperature in heating (air conditioning) systems. At the same time, it can accurately adjust the pressure drop and flow to improve the liquid flow state in the pipeline network system, so as to achieve the purpose of pipeline network liquid balance and energy saving. The valve is equipped with an opening degree indicator and a pressure measuring interface for flow measurement. As long as appropriate specifications of balancing valves are installed at the branch pipes and user inlets, the total water volume of the system can be controlled within a reasonable range, overcoming the unreasonable phenomenon of "large flow and small temperature difference".

CYHVA Series Static Balancing Valves

General Specifications

Balancing valve with precise design, simple structure, accurate parameters, large flow capacity and pressure measuring holes located on the same side for convenient measurement and energy saving.

Valve body material: Forged 59-1 brass, EPDM stem seal
Stem material: Alloy brass, brass valve core
Adjustment handle: Reinforced nylon with numbers
Connection size: DN15~ DN50
Connection method: G female thread (NPT customizable)
Medium temperature: 0°C~95°C
Medium range: Cold and hot water or 30% glycol solution 0°C~95°C
Valve body pressure: 1.6Mpa

CYHVB Series Static Balancing Valves

General Specifications

The Y-pattern globe valve body structure, combined with a precisely machined valve cone, features a compact design and high flow capacity. This measurement unit has both regulating and shut-off functions.

Valve Body Material: QT450 ductile iron valve body with EPDM seal
Valve Stem Material: 2CR13 stainless steel with ductile iron valve core
Adjusting Handle: Reinforced nylon with digital locking
Connection Caliber: DN32~ DN500
Connection Method: Flange connection
Medium Temperature: 0°C~95°C
Medium Range: Cold and hot water or 30% glycol solution 0°C~95°C
Valve Body Pressure Rating: 1.6Mpa

MOTORIZED 2/3 WAYS VALVES

Honeywell

VS9 Series

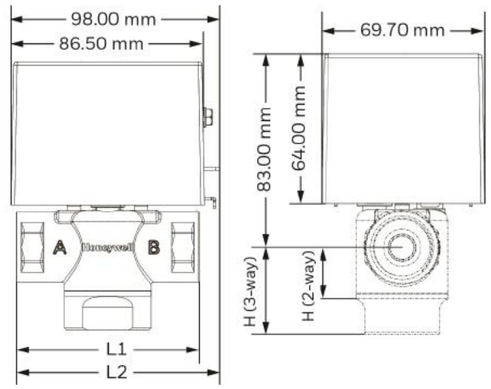
The VS9 series electric control valve can be applied to residential and commercial buildings to control the on/off of hot and cold fluid flow. It includes two parts: an electric actuator and a valve body.

Based on different regions of use, the VS9 series offers a variety of voltage and thread standard options, and provides two-way and three-way valve bodies, covering most of the needs of building control applications.

Basic Specifications	
Motor part	
Power supply	220 VAC ± 10 %, 110VAC ± 10 % 24VAC ± 10 % at 50/60Hz
Control Method	Switch type, with spring return function, always closed when power is off.
Operation Temp. Range	0- 50 °C
Operation Humidity Range	
Power Input	≤8VA
Action Time	Opening: ≤20s Closing: ≤15s
Protection Grade	IP20
Valve body part	
Applicable Medium	Cold, hot water or 50% ethylene glycol solution fluid
Temp. range	0 ~ 94°C
Product operation temp. range	0 ~ 50°C
Product operation RH. range	10 ~ 90%RH
Product storagte temp. & RH. range	-20～65 °C10~90% RH No Condenstate water
Nominal Pressure	PN20
Leakage rate	0 . 05%Kvs
Materials	Valve body: HPb59-2 Valve stem: HPb59-2 Sealing valve shaft: EPDM

Typical Order Models & Specs							
Model	Power Supply	2/3 Way	Size	Pipe Connection Method	Flow Capacity (Kvs)	Shut-off Differential Pressure (PSI)	Shut-off Differential Pressure (MPa)
VS92C15PP	220VAC ± 10 %	2	DN15,1/2"	BSPP	2.0 ± 1 0%	43	0.3
VS92C20PP	220VAC ± 10 %	2	DN20,3/4"	BSPP	2.4 ± 1 0%	36	0.25
VS92C25PP	220VAC ± 10 %	2	DN25,1"	BSPP	4.2 ± 1 0%	30	0.2
VS93C15PP	220VAC ± 10 %	3	DN15,1/2"	BSPP	2.0 ± 1 0%	43	0.3
VS93C20PP	220VAC ± 10 %	3	DN20,3/4"	BSPP	2.4 ± 1 0%	36	0.25
VS93C25PP	220VAC ± 10 %	3	DN25,1"	BSPP	4.2 ± 1 0%	30	0.2

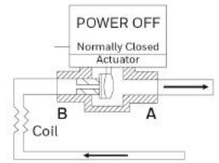
Dimensions (mm)



Models	Dimensions (mm)		
	L1	L2	H
VS92X15XX	78.00	89.00	19.00
VS92X20XX	82.00	91.00	21.50
VS92X25XX	88.00	94.00	24.50
VS93X15XX	78.00	89.00	34.00
VS93X20XX	82.00	91.00	37.00
VS93X25XX	88.00	94.00	45.00

Installation Precautions

Figure 1 2-way Normally Closed to the Coil



3-way is only used for normally closed configuration with port B. If it is used for normally open configuration, rotate the valve with 180°.

Figure 2 3-way Valve in Mixing Configuration, Normally Closed to Coil

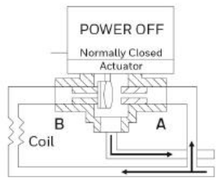
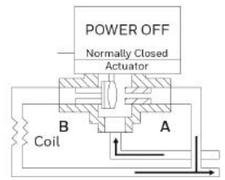


Figure 3 3-way Valve in Diverting Configuration, Normally Closed to Coil



The flow direction is from “B” to “A” (see Figure 1).
When installing the actuator of normal-closed valve, you must put the manual lever to the “Open” position.
The manual lever of the actuator will move to the automatic position when you first operate the valve.
VS9 series are designed for fully closed systems, which is not suggested to be used in an open system. In the open system, excessive dissolved oxygen and chlorine will erode the valve material and cause permanent damage.

MOTORIZED 3 WAYS VALVES BODY

Honeywell

V5GV3 Series

Three-Way Flange Connection Linear Valve PN16

Product Overview

Honeywell linear regulating valves can be connected to Honeywell ML8824 linear valve actuators for use in air conditioning systems.

Product Features

1.Honeywell linear regulating valves can be connected to
2.Honeywell ML8824 linear valve actuators for use in air conditioning systems.
3.Precise stem positioning ensures accurate temperature control
4.No connecting rod needed, can be directly installed with Honeywell actuators

(Aslo offer 2 ways valves as optional)

Technical Specifications

Basic Parameters	
Action Direction	Stem up A-AB closed
Nominal Pressure	PN16
Valve Type	3 Ways Converge
Fluid Characteristics	A-AB: Percentage B-AB: Linear (refer to chart)
Adjustable Ratio	50:1
Leakage Rate	A-AB：≤0.02% of Kvs B-AB：≤1% of Kvs
Rated Movement range	20mm （DN50...80 ） 40mm （DN100...150 ）
Connection Method	Flange Connection ISO 7005-2
Medium	
Medium	Cold/hot water
Medium Temp. Range	-15…+130° C
Materials	
Valve Body	Ductile Iron GGG40
Valve Seat	Stainless Steel
Valve Stem	Stainless Steel
Valve Core	Stainless Steel
Sealing Packing	PTFE + Stainless Steel Spring

Model Number

Model	Valve connection Size	Kvs
V5GV3W050F-E	DN50	40
V5GV3W065F-E	DN65	63
V5GV3W080F-E	DN80	100
V5GV3W100F-E	DN100	160
V5GV3W125F-E	DN125	250
V5GV3W150F-E	DN150	360

Installation Requirements

· The water medium must meet VDI2035 requirements.
· The valve stem position must not be below the horizontal plane.
· The fluid flow direction should be consistent with the direction of the arrow on the valve body.
· It is strongly recommended to install a filter before the valve.

MOTORIZED 2/3 WAYS VALVES ACTUATOR

Honeywell

ML8824 Series

Three-Way Flange Connection Linear Valve PN16

Product Overview

The ML8824 series valve actuators can provide modulating control for valves and output position feedback signals of 0(2)..10VDC or 0(4)..20mA, widely used in air conditioning systems.

Product Features

- Easy and quick installation
- Low energy consumption, maintenance-free
- Adaptive travel mode
- Adjustable running time
- Manual switch with manual priority function
- 0(2)~10VDC, 0(4)~20mA input signal
- 0(2)~10VDC, 0(4)~20mA position feedback
- signal
- Action direction selectable
- NFC (ML8824B)

Technical Specifications

Temperature	
Operation Environmet (Temp. & RH)	-10~+55° C(5~95%RH)
Storage Environmet (Temp. & RH)	-40~+65 ° C (5...95%RH)
Operation Medium Max Temp.	130 ° C
Signal	
Input Signal	0~10 VDC，2~10 VDC；Voltage input impedance >100 KΩ
	0~20mA，4~20mA； Current input impedance <0.125KΩ
Feedback Signal	0~10 VDC，2~10 VDC； 0~20mA，4~20mA
Safety	
Certification	CE(EN60730)
Electrical Protection Level	III (EN60730-1)
Protection Level	IP54 (EN60730)
Materials	
Top Cover	PC Plastic
Shell Body	600N: Plastic; 1800N: Cast aluminum
Bracket	Cast aluminum
Wiring	
Wiring Terminals	1.5mm 2
Cable Connection	PG13.5
	Reserve PG13.5 and PG9 interfaces.

Model Selection

Model Number	ML8824A0620	ML8824A1820	ML8824A1840
Power Supply	24VAC±15%, 50/60Hz; 24VDC ± 15%, -10%		
Power Input	7VA	20VA	20VA
Input Signal:0(2)VDC or 0(4)mA	The valve connector is at the lower end, the two-way valve is "closed," and the three-way valve A-AB port is "open."①		
Input Signal:10VDC or 20mA	The valve connector is at the upper end, the two-way valve is "open," and the three-way valve A-AB port is "closed."①		
Signal Feedback	0(2)~10VDC, 0(4)~20mA		
Rated Stroke	20mm	20mm	40mm
Operation Time	60s or 80s	40s or 60s	80s or 120s
Push Strength	≥600N	≥1800N	
Weight	1.3kgs	2.3kgs	2.4kgs

① Factory settings. Reverse action can be achieved through the 5th DIP switch on the PCB.

STATIC BALANCING VALVES

Honeywell

VSHC Series

Applications

Honeywell VSBC series static balancing valves achieve Kv value adjustment by manually adjusting the valve opening degree. When used with dedicated balancing valve commissioning instruments, they can achieve accurate flow presetting. Installing static balancing valves in the water systems of central air conditioning systems allows for precise setting of the maximum flow rate of the pipelines through commissioning. This avoids pipeline overflow or underflow, achieving static balance of the water system, and ultimately realizing comfort and energy saving in central air conditioning systems.

Honeywell VSBC series static balancing valves are mainly installed on the branch pipes or terminal branch pipes of central air conditioning water systems. They can also be applied to other occasions with the same or similar functional requirements.

Product Features

1. Large Kv Value Design
With a large Kv design, the valve has lower water resistance and is more energy-efficient under the same flow rate.

2. Compact Internal Lift Structure Design, Small Installation Space

3. Digital Handwheel
The digital handwheel has precise scale displays, with a user-friendly reading design to ensure operators can conveniently and accurately perform balance adjustments.

4. Self-Sealing Measurement Port
Using a debugging instrument, pressure difference measurements can be taken through the measurement port, which can also be used for venting and draining.

5. Zero Leakage Complete Shutoff Design
The valve adopts a zero leakage complete shutoff design, making it convenient for equipment debugging or system maintenance when the pipeline needs to be completely shut off.

6. Hidden Locking Method to Prevent Misoperation
The hidden locking method is convenient and can effectively prevent misoperation. In the locked state, the handwheel can reduce the water flow to the closed state to achieve the shutoff function, but it cannot increase the valve Kv value beyond the preset value, ensuring that after closing, reopening can directly adjust to the preset state.

Basic Specifications

Pressure rating	PN16
Diameter	DN15-DN50
Applicable Medium	Cold/hot water, up to 50% ethylene glycol solution (water quality standard: GB/T29044-2012)
Medium Temperature	-20...110° C
Main Part Materials	Valve Body: Forged Brass
	Valve Stem: Forged Brass
	Valve Core: Forged Brass
	Seal: FKM
	Handwheel: PA66 + Glass Fiber
Connection Methods	Thread (ISO7-1)
Leakage Rate	Zero Leakge Rate

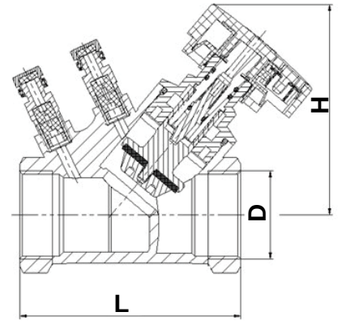
Typical Order Models & Specs

Model	DN	Kv (m3/H)
VSBC16R-015	DN15	3.4
VSBC16R-020	DN20	6.2
VSBC16R-025	DN25	9.7
VSBC16R-032	DN32	15.2
VSBC16R-040	DN40	20.6
VSBC16R-050	DN50	33.0

Ordering Information and other Technical Parameters

Model Number	DN	Kvs m³/h	D mm	L mm	H mm	Weight g
VSBC16R-015	DN15	3.4	Rp1/2"	80	87.5	677
VSBC16R-020	DN20	6.2	Rp3/4"	80	87.5	691
VSBC16R-025	DN25	9.7	Rp1"	89	90	815
VSBC16R-032	DN32	15.2	Rp1-1/4"	105	100	1108
VSBC16R-040	DN40	20.6	Rp1-1/2"	120	107	1494
VSBC16R-050	DN50	33.0	Rp2"	140	117	2250

Accessories: VHS-PT Test Port, VHS-HW hand wheel

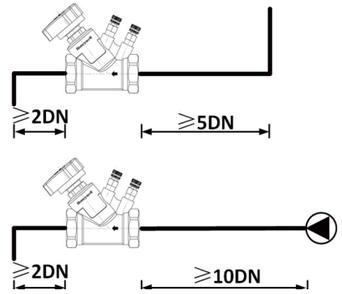


Static Balancing Valve Installation

When installing the VSBC series static balancing valves, the water flow direction must be in the same direction of the flow direction arrow on the valve body.

To avoid turbulence flow in the pipe which may affect the performance on the valve, a straight pipe segment with a certain length must be reserved before the inlet and after the outlet of the valve, as shown in the diagram in the right. (2DN = 2 times the pipe diameter)

Note: If the inlet is close to a water pump, reserve a straight pipe segment minimum of ten times the pipe diameter (10DN) to avoid inaccuracy during the balancing commissioning procedure.

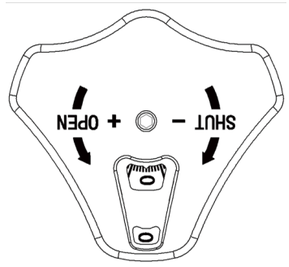


Static Balancing Valve Presetting Method

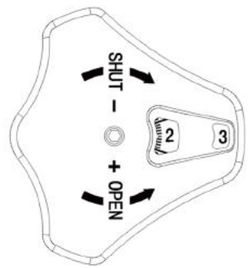
Preset values (i.e., Kv value and the corresponding hand wheel readings) are achieved by completing the commissioning of the VSBC series static balancing valve. Then the hand wheel can be locked so it won't be changed under any circumstance and affect the static balanced achieved.

Setting
1. Shut off the valve. The hand wheel reading is 0.0, as shown in the figure **Closed State**;
2. Open the valve to the preset value. For example, if the preset value is 3.2, then the hand wheel shall be turned in such a way that it matches the reading in the figure **Setting State** (ones digit on the outside, one-tenth digit on the inside).
3. After turning to the preset value, insert the hexagonal key (3mm) into the socket in the center of the hand wheel and turn clockwise to lock, as shown in the Locked State.

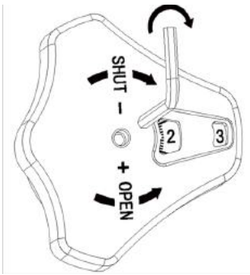
Check the Setting
After the setting is completed, you need to check the setting values:
1. Shut off the valve. The hand wheel reading should be 0.0, as shown in the figure **Closed State**;
2. Turn the hand wheel to the maximum. The hand wheel should read the preset value 3.2, as shown in the figure Set State.



Closed State
The shown hand wheel reading is 0.0 turn



Setting State
The shown preset value is 3.2 turns



Locked State
The shown preset value is 3.2 turns

STATIC BALANCING VALVES

Honeywell

VSHB Series

Applications

Honeywell VSHB series static balancing valves, through handwheel adjustment and supporting commissioning instruments, can achieve precise flow pre-regulation. In heating and central air conditioning systems, it can accurately pre-set the maximum flow rate of the water pipeline, avoiding excessive or insufficient flow in the water pipeline, thus achieving static hydraulic balance of the water system.

Honeywell VSHB series static balancing valves are mainly installed in risers, branch pipes and terminal equipment pipelines of HVAC water systems, and can also be applied to other occasions with the same or similar functional requirements.

Product Features

1. Large Kv Value Design
Large Kv design results in lower water resistance and more energy savings for the valve at the same flow rate.

2. Pressure-Balanced Valve Core Structure
The pressure-balanced valve core requires less thrust for up-and-down movement, making it easy to turn the handwheel to adjust or open/close the valve regardless of the medium pressure. This makes commissioning easier and improves adjustment accuracy.

3. Complete Shut-Off Design
The valve features a complete shut-off design, allowing for full closure of the corresponding water pipeline during equipment commissioning or system maintenance. Large-diameter valve handwheels have wrench connection holes and matching wrenches for convenient switching and adjustment of large-diameter valves.

4. Digital Handwheel
The digital handwheel has precise scale displays and user-friendly reading design, ensuring that operators can perform balance adjustments conveniently and accurately.

5. Self-Sealing Measurement Port
The measurement port allows for differential pressure measurement using a commissioning instrument and can also be used for venting and draining.

6. High-Quality Valve Body Material
The ductile iron valve body is made of high-quality QT450-10 ductile iron material.

Basic Specifications

Pressure rating and caliber	PN16:DN50-DN500，PN25:DN15- DN500	
Applicable medium	Cold/hot water, up to 50% ethylene glycol solution (water quality standard: GB/T29044-2012)	
Medium temperature	-25° C...150° C	
Flow accuracy	±10%	
Main component material	PN16： DN50-DN500 PN25： DN65-DN500 Valve body: Ductile iron QT450-10 Valve stem: Stainless steel Valve core: Stainless steel Handwheel: Die-cast aluminum	PN25： DN15-DN50 Valve body: Brass HPb59-1 Valve stem: Brass HPb59-1 Valve core: Brass HPb59-1 Handwheel: PA
Connection Size & Methods	PN16： DN50-DN500 PN25： DN65-DN500 Flange: （ISO7005-2）	PN25： DN15-DN50 Screw: （ISO7-1）

Typical Order Models & Specs

Model	DN	PN	Connection Type	Kvs m3/h	Weight (Estimated) kg
VSHB16F-050	DN50	PN16	Flange	50	11
VSHB16F-065	DN65	PN16	Flange	103	15
VSHB16F-080	DN80	PN16	Flange	149	21
VSHB16F-100	DN100	PN16	Flange	255	32
VSHB16F-125	DN125	PN16	Flange	432	47
VSHB16F-150	DN150	PN16	Flange	646	67
VSHB16F-200	DN200	PN16	Flange	1067	138
VSHB16F-250	DN250	PN16	Flange	1631	218
VSHB16F-300	DN300	PN16	Flange	2228	298
VSHB16F-350	DN350	PN16	Flange	3204	407
VSHB16F-400	DN400	PN16	Flange	4850	630
VSHB16F-450	DN450	PN16	Flange	5500	885
VSHB16F-500	DN500	PN16	Flange	6010	1125
VSHB25R-015	DN15	PN25	Screw	5.8	0.8
VSHB25R-020	DN20	PN25	Screw	8.0	0.9
VSHB25R-025	DN25	PN25	Screw	11	1.2
VSHB25R-032	DN32	PN25	Screw	17	1.6
VSHB25R-040	DN40	PN25	Screw	25	2.0
VSHB25R-050	DN50	PN25	Screw	34	3.7
VSHB25F-065	DN65	PN25	Flange	107	15
VSHB25F-080	DN80	PN25	Flange	145	21
VSHB25F-100	DN100	PN25	Flange	259	32
VSHB25F-125	DN125	PN25	Flange	430	47
VSHB25F-150	DN150	PN25	Flange	647	67
VSHB25F-200	DN200	PN25	Flange	1085	126
VSHB25F-250	DN250	PN25	Flange	1630	200
VSHB25F-300	DN300	PN25	Flange	2495	330
VSHB25F-350	DN350	PN25	Flange	3229	450
VSHB25F-400	DN400	PN25	Flange	4850	650
VSHB25F-450	DN450	PN25	Flange	5500	900
VSHB25F-500	DN500	PN25	Flange	6010	1150

MANUAL VALVES

Collection From Our Selected Certified Suppliers
Premium Brands
★ ★ ★

CYH.C11F Series
Differential Pressure Bypass Valve

Valve Body Material: Forged Brass
Sealing Material: Nitrile Rubber
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and Hot Water
Working Temperature: 0~95°C

CYH42.N Series
Electric Heat Control Valves

Valve Body Material: Brass (Silver Plated)
Valve Stem Material: Stainless Steel
Sealing Material: EPDM
Nominal Pressure: 1.6MPa
Working Voltage: AC24V AC220V
Power Consumption: 3W
Working Temperature: 0~95°C

CYH.Z11F Series
Manual Gate Valves

Valve Body Material: Forged Brass
Handle: Cast Iron
Sealing Material: Nitrile Rubber
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and Hot Water
Operating Temperature: 0~95°C

CYH.J11F Series
Manual Stop Valves

Valve Body Material: Forged Brass
Handle: Cast Iron
Sealing Material: Nitrile Rubber
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and Hot Water
Working Temperature: 0~95°C

CYH.Q11F Series
Manual Ball Valve

Valve Body Material: Forged Brass
Handle: Steel
Sealing Material: PTFE, Nitrile Rubber
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and Hot Water
Working Temperature: 0~95°C

CYH.S11F Series
Manual Filter Ball Valve

Valve Body Material: Forged Brass
Handle: Steel
Seal Material: PTFE, NBR
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and hot water
Working Temperature: 0~95°C

CYH.G11F Series
Brass Y Shape Filter

Valve Body Material: Forged Brass
Sealing Material: PTFE
Nominal Pressure: 1.6MPa
Applicable Medium: Cold and hot water
Working Temperature: 0~95°C

CYH809 Series
FCU Flexible Connection Pipes

Connector: Forged steel (chrome plated)
Corrugated pipe: 304 stainless steel
Sealing material: Nitrile rubber
Nominal pressure: 1.6MPa
Applicable medium: Cold and hot water
Working temperature: 0~95°C

Notes