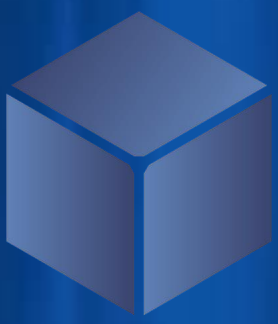
AIDC High Efficient And Density Air Cooling/ Liquid Cooling Solutions



RISING BuildTech

GuangZhou RISING BuildTech Co., Ltd.

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Company Profile



- **The total area of the production base reaches 220,000** square meters.
- **The company currently has more than 2,000 employees, and about 15%of them are** R&D **team.**
- Annual production capacity:**up to 300,000 units/sets.**

The Data Center Business Division of Rising,inheriting the company's more than 20 years accumulation in the field of **industrial temperature control,is dedicated to high-density air and liquid cooling technologies and solutions for Data Centers.With those solutions,a diverse product portfolio is provided,offerings include Integrated Chillers,** Dry Coolers **for primary side and A2L/L2L CDUs(Cabinet and In-**Rack),Manifolds,RDHx, **Mini Fan-Walls,Immersion TANKs and** Prefabricated Piping secondary side.

CNAS

10 laboratories in total

More than 100 product performance items.



Enthalpy difference laboratories×2

Maximum Airflow:15,000m³/h.
Temperature range:-20℃to 65℃.
Humidity range:30%to 95%.



Low-temperature laboratories*2

Temperaturerange:-50℃to 65℃.



Environmental laboratories*2

Support ambient temperature of 35℃.

Long-term aging test Initial adjustment of new product prototypes.



Comprehensive laboratories×2

EMC testing.
High-**altitude low-pressure creepage distance test.**
Vibration simulation test.
It spray test.



Semi-anechoic chamber ×1

Ambientnoise canbe reducedto 20 dB.
Hexahedralmeasurement.
Precise measurement of equipment operating noise.



Climate laboratory×1

Simulate a variety of climatic conditions such as rainfalland snowfal.

Manufacturing Capabilities



RGV Assembly Line


Product Assembly Line


Dry Cooler Assembly Line


Automatic Welding Robot


Automatic Bending Machine



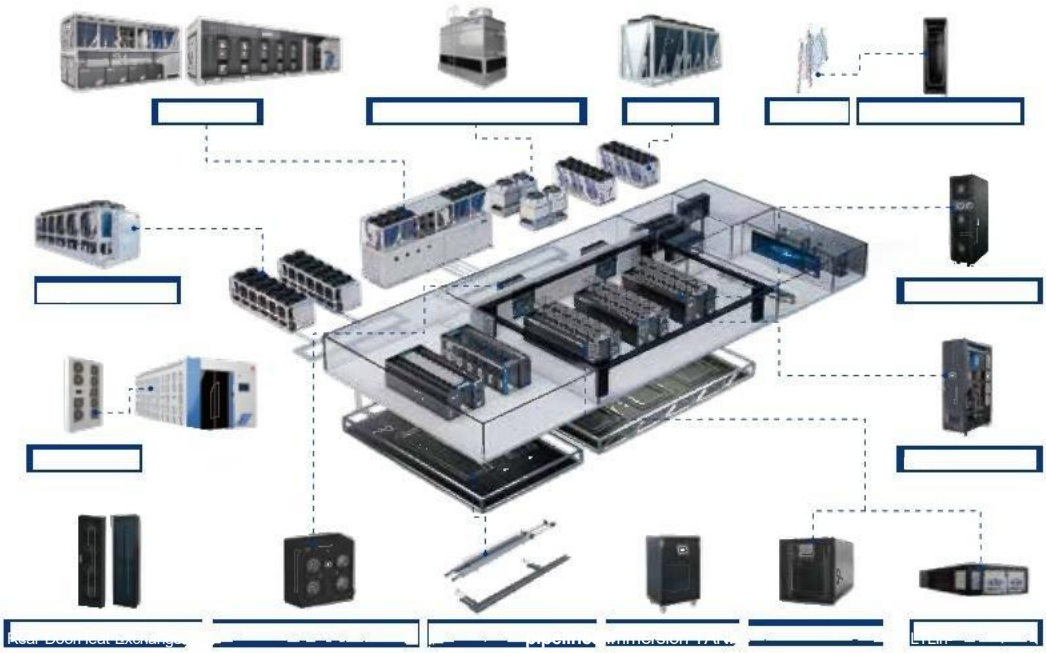
Vacuum Brazing Chamber


Heat Exchanger Production Line


Electrostatic Spray Painting Line

Cold Plate Liquid Cooling Solution

TONFY focuses on the research and development of data center cooling products,offering a fullserial of products from liquid-cooling Rack,CDU,manifold,immersion tanks,prefabricated piping,and primary **side cooling sources to meet the cooling needs of various data centers.The integrated design of dry coolers and supplementary cooling units,with air-cooled modules and liquid-cooled modules sharing a set of cold water trays,which could reduces costs,saves space,and facilitates on-site installation.**



Advantages of Rising's Liquid Cooling Solutions

Efficient heat exchange

By utilizing high-performance stainless steel heat exchangers and optimized fluid dynamics design, it ensures that heat is rapidly and effectively transferred **from the servers to the coolant,thereby achieving** efficient heat management.

Flexible deployment

With a complete range of products,it can be customized according to the specific layout and requirements of the data center.Whether it's a new construction or a renovation project,it can be easily integrated.

Energy saving and consumption reduction

Liquid cooling systems offer higherenergy efficiency **compared to traditional air cooling systems, significantly reducing the PUE(Power Usage Effectiveness)values of data centers,aligning with the development trend of green data centers.**

Reliable and stable

TONFY **products undergo rigorous quality control and testing to ensure they can maintain long-term** stableoperation even in harsh environments.

Cabinet(In Row)CDU

Features



- **Dual pump redundant design allows for automatic switchover to the backup pump in case of a single pump failure.**
- High-efficiency stainless steel plate heat exchanger with compact structure **and high corrosion resistance.**
- **All internal piping is made of stainless steel to ensure the system is clean and pollution-free.**
- **Internationally renowned brand PLC controller for secure operation.**
- **Intelligent PLC control program for** real-time monitoring and control to ensure **the safe and stable operation of the unit.**
- **Expert-level fault diagnostics for easy maintenance.**
- **Supports Modbus RTU,with an optiona**l TCP/IP **configuration.**
- **Easy-to-operate color human-machine interface for convenient monitoring of unit operation by management personnel.**
- **The touch screen can be set with multiple levels of passwords to protect** information security.

Specification

Model			DWW300-65A	DWW600-80AW	DWW600-80AN	DWW1200-100A	DWW2400-125A
Cooling Capacity		kW	300	600	600	1200	2400
Secondary Inlet		℃	40				
Secondary Flow Rate		m³/h	26	52	52	90	180
Secondary Pipe Diameter		DN	DN65	DN80	DN80	DN100	DN125
ATD		℃	5		4		
Filtration		μm	50		50/25		
Secondary Differential Pressure Output		kPa	⩾120				
Pumps		N/A	1+1				2+1
Primary Inlet		℃	35		36		
Primary Flow Rate		m³/h	26	52	52	90	180
Primary Pipe Diameter		DN	DN65	DN80	DN80	DN100	DN125
Rated PowerConsumption		kW	4.5	8	10.5	22.5	44.5
Primary Pressure Drop		kPa	⩽100		⩽120	⩽150	
Power Supply		/	AC3/N/PE 380~480V50/60HZ DC 800V				
Dimensions	Width	mm	600	900	600	600	900
	Depth	mm	1200				
	Height	mm	2000			2200	

In Rack CDU

Features

- **Dual pump redundant design allows for automatic switchover to the** backup pump in case of a single pump failure.
- **High-efficiency stainless steel plate heat exchanger with a compact structure and high corrosion resistance.**
- **Internationally renowned brand PLC controller ensures safety and reliability.**
- Intelligent PLC control program for real-time monitoring and control **to ensure the safe and stable operation of the unit.**
- Expert-level fault diagnostics for easy maintenance and operation.
- **Supports Modbus RTU,with an optional TCP/IP configuration.**
- **User-friendly color human-machine interface for convenient monitoring of unit operation by management personnel.**
- **The touch screen can be set with multiple levels of passwords to** protect information security.



Specification

Model			DWW30-20C	DWW50-25C	DWW120-32C	DWW150-32C
Cooling Capacity		kW	30	50	120	150
Secondary Inlet		℃	40			
Secondary Flow Rate		m^3/h	45	72	150	
Secondary Pipe Diameter		DN	DN20	DN25	DN32	
ATD		℃	5		4	
Filtration		μm	50			
Secondary DifferentialPressureOutput		kPa	≥100			
Pumps		N/A	1+1			
Primary Inlet		℃	35		36	
Primary Flow Rate		m^3/h	45	72	150	
Primary Pipe Diameter		DN	DN20	DN25	DN32	
Rated Power Consumption		kW	0.5	0.8	1.8	
Primary Pressure Drop		kPa	≤100		≤120	
Power Supply		/	AC1/PE 100~240V50/60HZ DC 120V~400V DC 48V			
Dimensions	Width	mm	445			
	Depth	mm	900			
	Height	mm	175(4U)			

Prefabricated Piping



3D Modeling

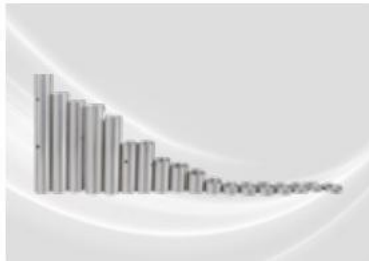


Factory Prefabrication

Features

- **The company possesses advanced fully automatic stainless steel welding equipment,laser cutting,automatic** punching machines,and other precision processing equipment,pickling and passivation equipment,and laser **cleaning equipment,ensuring the cleanliness and aesthetic appeal of stainless steel products.**
- **Various testing methods such as pressure testing,penetrant testing,and helium testing are employed to ensure** product sealing;
- **Factory prefabrication allows for rapid on-site assembly,reducing construction workload.**
- It can meet customized needs for various scenarios.







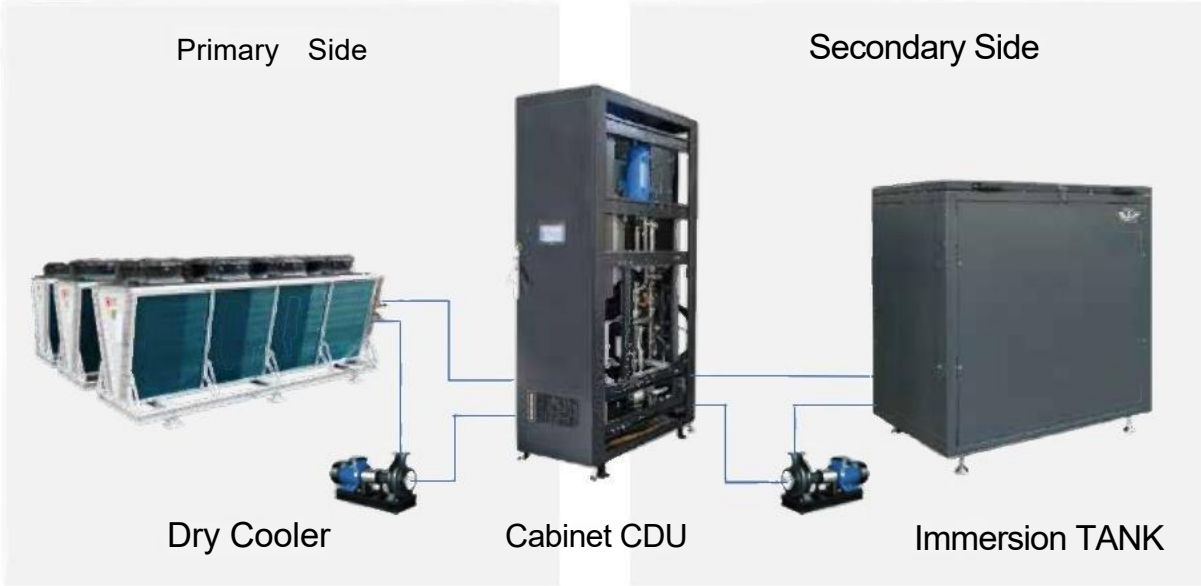
Liquid Cooling Distribution Manifold





- **Made of 304 stainless steel material.**
- **Branch connectors all use drip-free quick connectors.**
- **Reasonably designed,with a flow unevenness of less than 10% in each branch circuit.**

Immersion TANK



Features

- Customizable U spaces.
- Side/bottom Inlet/Outlet with top access.
- Compatible with synthetic oil/fluorinated liquid.
- All SUS304 **wetted materials.**
- Air-Cooled TANK without Cooling Source.
- Build-in CDU is Customizable.

Specification

Immersion TANK		DTK60	DTK120
Cooling Capacity	kw	60	120
U Space	/	25	42
Secondary Inlet/Outlet(synthetic oil)	℃(° F)	40/50(104/122)	
Secondary Flow Rate	m^3/h	12	24
Primary Inlet	℃(F)	40/50(104/122)	
Primary Flow Rate	m^3/h	5.2	10.4
Powe Supply	/	208V~240V, 1Ph, 50/60Hz 380V~415V, 3Ph, 50/60Hz	
Pump	/	2	
Dimensions(W*D*H)	mm	1800x800x1200	2800x800x1200
	inch	71x32x48	111x32x48

Dry Cooler

Features

- **The contact liquid materials are all made of SUS304 material,which is high-strength,corrosion-resistant,and safe and reliable,** suitable for various heat transfer media.
- **The heat exchanger plates use anti-corrosion coated aluminum fins,which have good heat transfer performance and are corrosion-resistant.**
- **EC axial flow fans with 10%to 100%stepless speed control for precise temperature regulation.**
- **Optional high-pressure spray/wet film modules available.**
- **Optional PLC control system available.**
- **Customizable according to customer requirements.**



Specification

Model			DHWA840-65V	DHWA1520-80W	DHWA3180-125W	DHWA4440-150W
Cooling Capacity Inlet/Outlet Liquid △T at 10℃	ATD at 10℃	kW	270	530	1100	1600
	ATD at 5℃		180	330	700	1000
Flow Rate		m^3/h	24	46	98	138
Pressure Drop		kPa	70	70	80	100
Airflow		m^3/h	80000	160000	260000	364000
Fan Quantity		PCS	4	8	10	14
Rated Power		kW	8	16	23	32.2
Inlet/Outlet Pipe Diameter		DN	DN65	DN80	DN125	DN150
Power Supply System		/	380V~480V, 3Ph, 50/60Hz			
Dimensions	Length	mm	4600	4300	5900	8000
	Width	mm	1200	2300	2500	2500
	Heightt	mm	1800	2700	2700	2700

Note:C **oolantis revised to 30%ethylene glycol;cooling capacity will drop to 96%.**

Integrated Chiller

Features

- The temperature difference between the water outlet of the dry cooler and the ambient temperature can be around 7~8℃.
- When the water outlet temperature of the dry cooler is 40℃ and the ambient temperature is below 32℃, only the dry cooler operates,making fulluse of the natural cold source.
- When the temperature exceeds 32℃ during high-temperature periods in the summer,the high evaporation temperature chilled water unit is activated to supplement the cooling capacity.
- Large screw-type/centrifugal/magnetic bearing units can be customized.
- Customizable large-scale screw/centrifugal/magnetic levitation compressor packages.



High Reliability

The integration of dry coolers with supplementary cooling units into a single cold source can adapt to various extreme weather conditions, ensuring the **outlet water temperature.**

Flexible deployment

The integrated cold station can be invested in phases, allowing for flexible capacity expansion.

Ultimate water saving

It does not consume water resources at all**,avoiding the** problems of freezing and scaling in spray systems.

High energy efficiency ratio

The supplementary cooling units use a high evaporation temperature system,which results in a higher energy efficiency ratio.

Integrated Chiller

Features

- Integrated pump circulation module for the whole machine,facilitating easy installation and deployment.
- **Well-known brand compressors for stability and reliability.**
- **Intelligent control programs for real-time monitoring and control to ensure the safe and stable operation of the unit.**
- **Expert-level fault diagnostics for easy maintenance and operation.**
- **Supports Modbus RTU,with optional TCP/IP configuration.**
- **Easy-to-operate color human-machine interface for convenient management personnel to timely understand the operation of the unit.**
- **The touch screen can be set with multiple levels of passwords to protect information security.**

Specification

Model			DCW-2000B	DCW-6000A
Cooling Capacity		kW	200	600
Rated Suction Temperature		℃	20	20
Ambient Inlet Air Temperature		℃	35	35
Suction Flow Rate		m^3/h	22	66
Suction Pressure		bar	2	2
Rated Power		kW	70	190
Pipe Connection		DN	DN50	DN100
Suction Temperature Range Setting		℃	15～35	
Power Supply System		/	AC 3/N/PE 380~480V 50/60Hz	
Dimensions	Length	mm	4050	8000
	Width	mm	1900	2500
	Height	mm	2750	2600

Closed-Circuit Cooling Tower

As AI server power density continues to rise,liquid cooling has become an essential solution to sustain computing growth.The importance of cooling towers-as a key cooling source component in liquid cooling systems-is increasingly prominent across various data center scenarios.

Cooling towers can be classified in several ways:

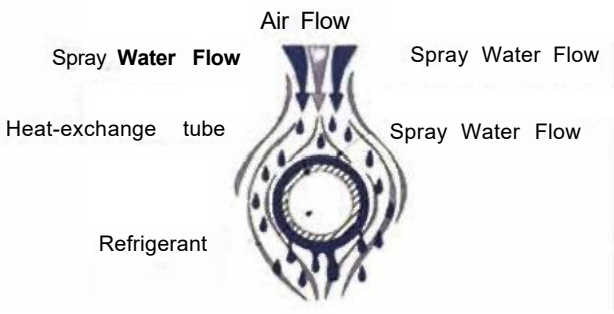
◆ **By contact between cooling medium and air:**

They are divided into open-circuit and closed-circuit cooling towers.In a closed-circuit tower,the cooling medium flows inside a sealed heat exchanger and exchanges heat indirectly through the exchanger wall with the spray water and air outside.The cooling medium does not contact the air directly,thus no risk of **contamination.**

◆ **By structural configuration:**

They are categorized into counterflow and crossflow closed-circuit cooling towers.The main difference lies in the flow direction between air and spray water (the cooling medium outside the coil),which leads to significant variations in structure,performance,and applicable scenarios.

Product Classification



Crossflow Closed-Circuit Cooling Tower

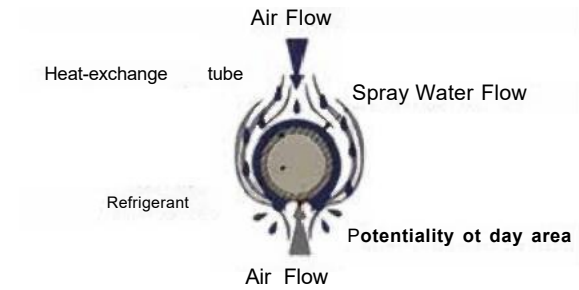
◆**Airflow and water flow in the same direction, eliminating the need to overcome the gravitational resistance of spray water.**

◆**Circulating water exchanges heat within the fill** section, **ensuring the spray water temperature remains at a low level during operation.**

◆Excellent anti-freezing performance with **minimal risk of ice formation.**

◆**Side-mounted coil design provides sufficient maintenance space inside the unit for easy inspection and servicing.**

◆Applicable to sites with height limitations and **where maintenance is convenient.**



Counterflow Closed-Circuit Cooling Tower

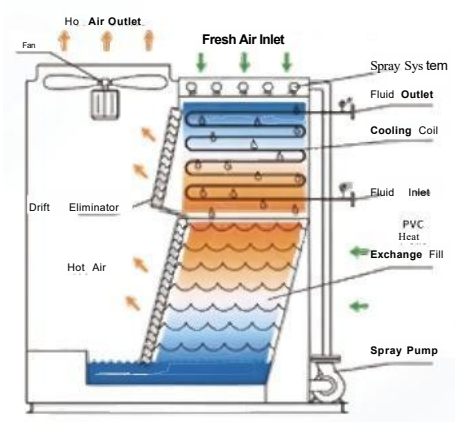
◆**Counterflow design between airflow and water flow enables higher heat exchange eficiency.**

◆**Fill-free structure provides a compact overall** design.

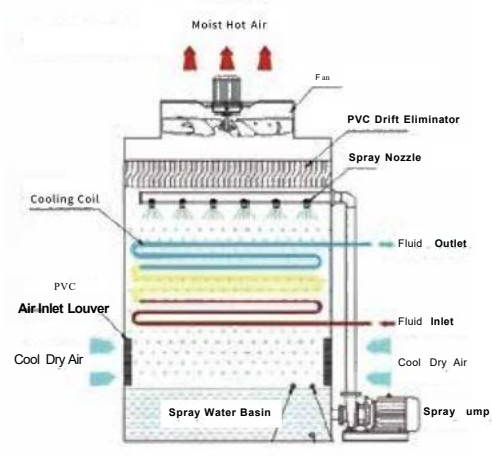
◆**Excellent sealing performance,suitable for harsh environments with high wind and dust** level s.

◆**Centrally positioned coil results in limited maintenance and operation space.**

◆**Ideal for applications requiring high heat exchange efficiency and where installation space is restricted.**



Crossflow Closed-Circuit Cooling Tower



Counterflow Closed-Circuit Cooling Tower

Main Components

Heat Exchange Coil



·The coil is made of stainless **steel tubes or high-**quality hot-dip galvanized steel tubes.

·Each coil and header assembly **undergoes air-tightness testing** after welding to ensure 100% weld integrity

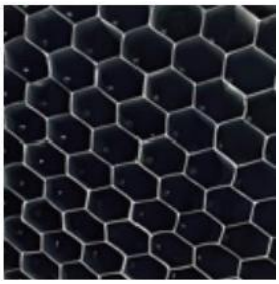
Aluminum Alloy Axial Fan



·Axial-coupled design with a **fully enclosed,self-cooled,** low- **noise motor.**

·Compact size,**light weight**,and **reliable operation.**

Fill Heat Exchange Layer



·Specially designed PVC honeycomb crossflow fill forms **zigzag water ripples,increasing** the contactarea between water **and air for enhanced heat exchange.**

Water Distribution System



· Adopts a gravity-type natural water distribution system.

·Equipped with basket-type ABS spray nozzles featuring large flow capacity,anti **clogging design,and easy removal for** cleaning.

Spray Pump



·Outdoor-rated water pump with IP55 motor protection.

·Features large flow,low power consumption,and low noise.

·Brand can be customized upon **customer request.**

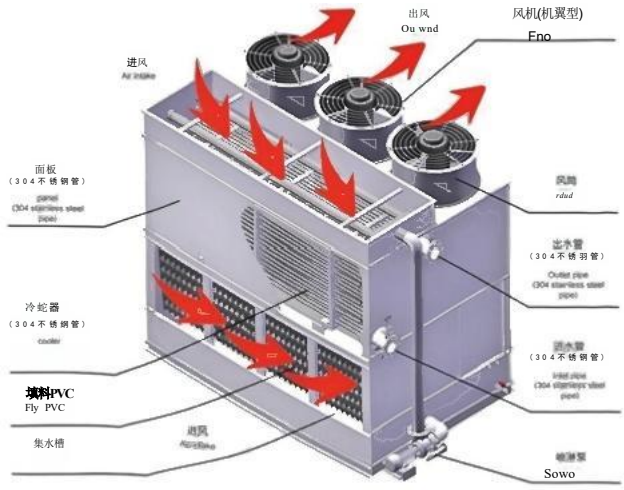
Cooling Tower Casing



· The casing is made of Al-Zn coated steel plate with strong corrosion resistance,excellent heat resistance,and an attractive appearance.

Working Principle of Closed-Circuit Crossflow Cooling Tower

The working fluid circulates inside the coil,whose outer surface is continuously sprayed with water.Heat from the fluid is transferred through the coil wall to the spray water and air,forming saturated warm and moist air,which is discharged to the atmosphere by the fan.During the circulation process,the spray water is cooled through the PVC heat exchange fill and mixes with the incoming fresh air in a same-direction(crossflow)pattern.The coil primarily relies on sensible heat transfer for cooling.



Specification

Model		DBH-5000	DBH-10000	DBH-12000
Nominal Heat Exchange Capacity (kW)		500	1000	1200
Inlet/Outlet Fluid Temperatures(℃)		45/35		
Heat Transfer Medium		20%Ethylene Glycol		
Fan	unit	1	2	2
	kW	4	4	5.5
Pump	unit	1	2	2
	kW	1.5	1.5	2.2
Inlet/Outlet Diameter (DN)		DN80	2×DN80	2×DN80
Operating Weight(kg)		4000	8000	9100
Overall Dimensions(LxW×H,mm)		3400×2150×4220	6800×2150×4220	6800×2150×4220

Note:The cooling tower adopts a modular design.Model selection may vary depending on environmental conditions,working medium,and inlet/outlet temperatures.For detailed specifications,please contact TONFY technical support.

Working Principle of Closed-Circuit Counterflow Cooling Tower

In a counterflow cooling tower,air enters from the bottom in a counterflow direction against the down-ward falling spray water,forming saturated warm and moist air.Heat is discharged by the fan at the top, while water is recovered by a specially designed drift eliminator and returned to the spray basin for recirculation.The tower does not contain heat exchange fill,allowing more internal space and increasing the unit heat dissipation area of the coil.The structure is compact and space-saving.



Specification

Model		DBN-5000	DBN-10000	DBN-12000
Nominal Heat Exchange Capacity (kW)		500	1000	1200
Inlet/Outlet Fluid Temperatures(℃)		45/35		
Heat Transfer Medium		20%Ethylene Glycol		
Fan	unit	1	2	2
	kW	4	4	5.5
Pump	unit	1	2	2
	kW	1.5	3	4
Inlet/Outlet Diameter (DN)		DN80	DN100	DN125
Operating Weight(kg)		4000	7200	8600
Overall Dimensions(LxW×H,mm)		2450×2150×3500	4450×2150×3500	5250×2150×3500

Note:The cooling tower adopts a modular design.Model selection may vary depending on environmental conditions,working medium,and inlet/outlet temperatures.For detailed specifications,please contact TONFY technical support.

Working Principle of Closed-Circuit Hybrid Cooling Tower

The heat exchange system of a hybrid closed-circuit cooling tower consists of a dry section and a wett section.

◆ **The dry section uses a finned-tube heat exchanger,relying solely on air convection to cool the circulating water inside the coils.**

◆ **The wet section sprays water onto the coil exterior,allowing evaporation to absorb heat and enhance cooling performance.**

The tower can automatically switch between operating modes based on ambient temperature and load:

01 Dry Mode

At low ambient temperatures(e.g., **winter),only the fan operates,using air to cool the** circulating water.

This mode consumes no water and is energy-efficient but provides relatively low cooling capacity.

02 Wet Mode

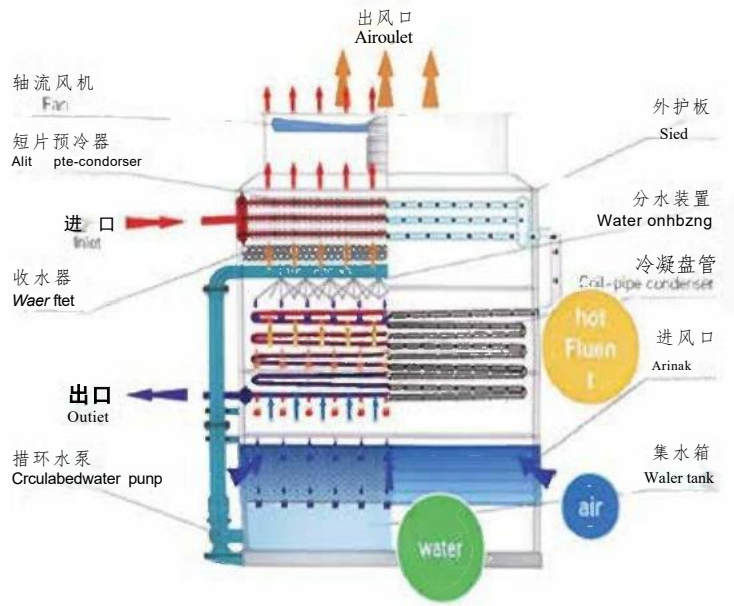
At high ambient temperatures(e.g., **summer),the spray system and fan operate together, using evaporative cooling to assist airin cooling the circulating water.**

This mode offers high cooling efficiency,though water consumption increases.

03 Hybrid Mode

During transitional seasons(moderate temperature and humidity),the tower operates with partial spraying combined with air cooling,dynamically adjusting the spray volume.

This mode balances energy efficiency and water-saving requirements.



Features of Closed-Circuit Hybrid Cooling Tower

High-Efficiency Heat Exchange

Equipped with both dry and wet sections, the system avoids dry spots and scaling on the coil surface, achieving efficient heat transfer.

Environmentally Friendly&Water-Saving

Suitable for regions with varying seasonal conditions, energy requirements, and water resource sensitivity.

Environmentally Friendly&Water-Saving

Mode-based water control: Dry mode at low temperatures consumes no water; hybrid mode during transiional seasons adjusts spray volume for water savings; wet mode is activated only when necessary, reducing unnecessary water consumption.

Easy Maintenance

Ergonomic structural design with spacious internal layout, providing convenience for maintenance personnel.

Technical Parameters of Closed-Circuit Hybrid Cooling Tower

Model		DBM-5000	DBM-10000	DBM-12000
Nominal Heat Exchange Capacity	kW	500	1000	1200
Inlet/Outlet Fluid Temperature	℃	45/35		
Heat Transfer Medium	/	20%Ethylene Glycol		
Fan	Quantity (Fan Unit)	1	2	2
	Fan Power	11	11	15
Pump	Quantity(Pump Unit)	1	1	1
	Pump Power	1.5	3	4
Inlet/Outlet Diameter(DN)		DN80	DN100	DN125
Operating Weight(kg)		6000	11000	11900
Overall Dimensions(L×W×H)		3100×2260x4200	5800x2260x4200	5800x2260x4200

Note:

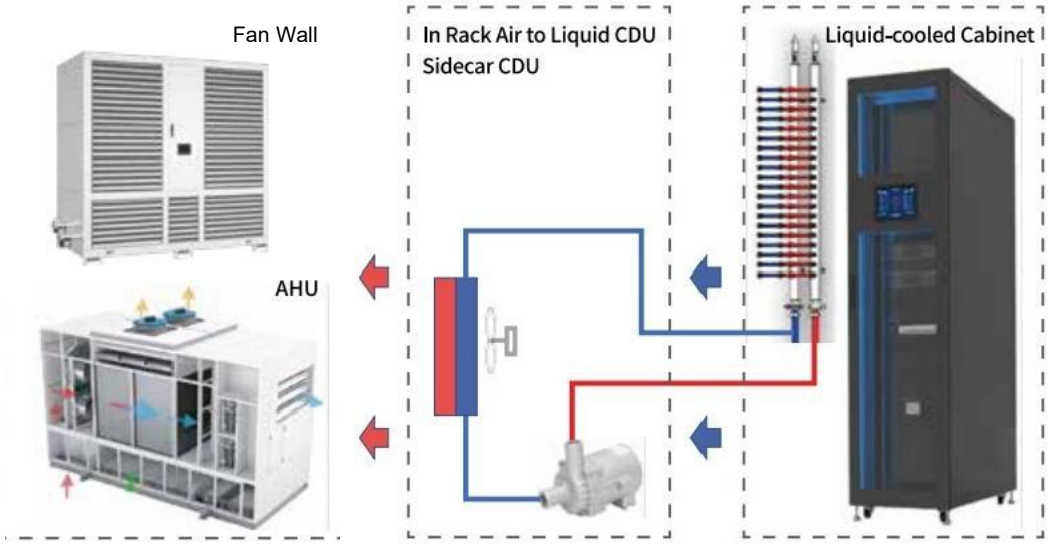
The cooling tower adopts a modular design.Model selection depends on ambient conditions,working medium types,**and inlet/outlet temperatures.**

For detailed specifications,please contact TONFY technical support.

Integrated Air to Liquid Cooling Solution

As data center computing power surges,liquid cooling technology becomes a significant advantage in addressing high power consumption and heat dissipation challenges in high-density environments.According to authoritative data, **air-cooled data centers sillconstitute over 90%of** the market in China**,with liquid-cooled centers accounting for less than 10%.Consequently,addressing the high energy consumption of traditional air-cooled data centers and outdated facilities has become an urgent and unavoidable challenge.**

Principle



TONFY has integrated liquid cooling technology into the air-**cooled data center setup,optimizing the spatial arrangement of servers and cooling equipment.This integration involves cabinets,air-cooled systems,and liquid-cooled systems via sophisticated air-to-liquid CDUs,along with other integral components.In high-heat-density areas such as server CPUs,cold plate liquid cooling is employed for heat dissipation.The heat absorbed by the coolant is then dispersed within the data center through the air-to-liquid CDUs,** and **eventually,the accumulated heat is expelled from the facility using advanced mechanisms such as Fan Wallor AHUs.**

Feature

1 Efficient Heat Dissipation

Liquid cooling and air **cooling collaborate to** rapidly and effectively dissipate thesubstantial heat producedbyservers.

2 Flexible Configuration

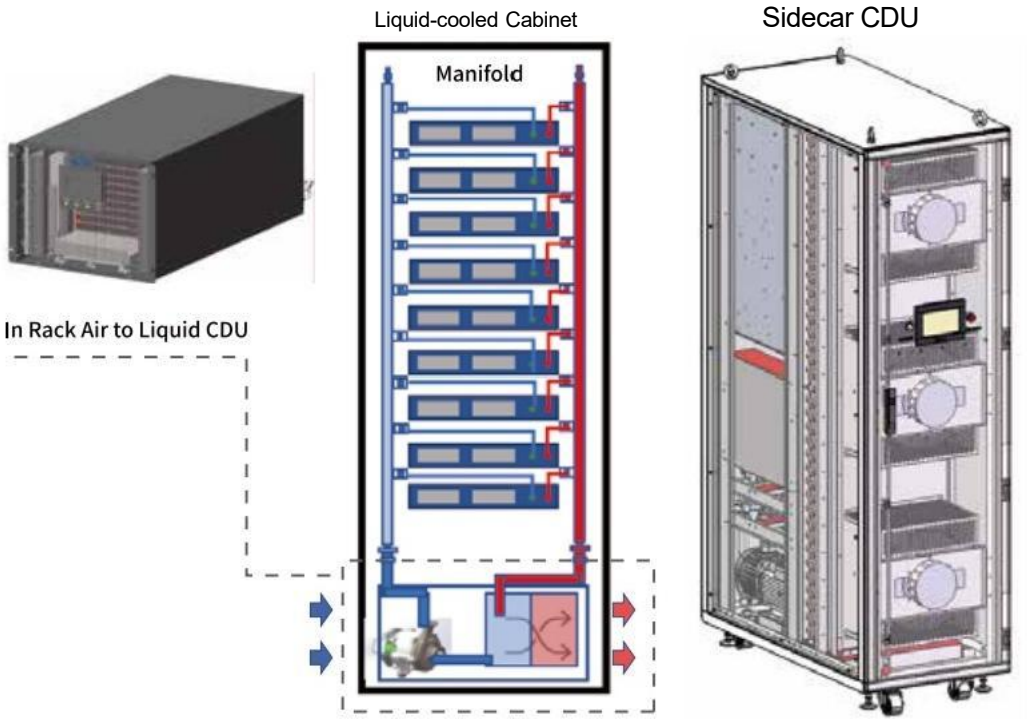
Within the module, the proportion of air coolingto liquid cooling **can be dynamically** adjusted.

3 System Simplicity

By eliminating the need for primary piping, **it reduces engineering workload** and investment costs.

4 Flexible Configuration

The design of micro-modules shorten s the **construction cycle of data centers and allows for flexible expansion.**



Scenarios

Liquid-cooled Cabinet

A liquid cooling system designed **specifically for single-cabinet servers,offering an efficient thermal management solution.**

Small Data Center

Ideal for small data centers that lack a primary liquid cooling source but are equipped with room air conditioners,it efficiently distributes and manages cooling capacity.

Upgrad... Air-Cooled Data Center to Liquid-Cooled

For existing data centers transitioning **from wind-cooled to liquid-cooled** systems,the wind-liquid CDU presents **an effective retrofitting solution.**

AIDC

In AI computing center projects, the wind-liquid CDU facilitates **the deployment of liquid-cooled** GPU **serverswithout the need for data center retrofitting,offering** an effcient thermal management solution.

Edge Computing

It offers flexible thermal management **solutions tailored to edge computing** scenarios,accommodating the unique **cooling requirements of edge computing environments.**

High Density Data Center

Suitable for the construction and retrofitting of large,medium,and **small high-density data center** facilites,it meets the diverse needs **of industries including finance, internet** ,government,and **telecommunications.**

Introduction

- Customized Design for Equipment.
- Multiple structural options are available,including In Rack Air to Liquid CDU and Sidecar CDU.
- A dual-pump redundancy system ensures automatic switchover to the standby pump in the event of a single pump failure.
- PLC controllers from internationally renowned brands ensure safety and reliability.
- Intelligent PLC control programs provide real-time monitoring and control to ensure safe and stable operation of the unit.
- Supports Modbus RTU with TCP/IP as an optional feature.
- An easy-to-operate color HMI(Human-Machine Interface)allows management personnel to promptly monitor the unit's operational status.

Parameter

Model			DWW10-20C	DWW20-20C	DWW120-32A	DWW140-40A
Type			n-Rack LTA CDU		Sidecar CDU	
Cooling Capacity		kW	12	20	120	140
Secondary Inlet		℃	40			
Secondary Flow Rate		m^3/h	18.5	25	180	300
Secondary Pipe Diameter		DN	DN20		DN32	DN40
ATD		℃	15			5
Filtration		μm	50			
Secondary Differential Pressure Output		kPa	⩾100			⩾120
Pumps		N/A	1+1			2+1
Inlet Air Temp		℃	25			/
Airflow		m^3/h	2500	3850	20000	40000
Rated Power		kW	1.5	2.6	10	22
Power Supply		/	AC1/PE 100~240V50/60HZ DC120~400V DC 48V		AC 3/N/PE 380~480V50/60HZ DC 800V	
Dimension	Width	mm	445		600	1200
	Height	mm	900		1200	1350
	Depth	mm	355(8U)	530(12U)	2340	

Chilled Water High Density Air Cooling Solution

Mini Fan Wall

Features



- **The air wall product features an integrated design of heat exchangers and fans** for easy installation and deployment.
- **Equipped with DC small fans,it is compact and convenient for maintenance.**
- Adjustable fan speed and water valve opening according to demand,allowing **for dynamic cooling capacity adjustment.**
- **Intelligent control program for real-time monitoring and control to ensure the** safe and stable operation of the unit.
- **Expert-level fault diagnostics for easy maintenance and operation.**
- Supports Modbus RTU,with an optional TCP/IP **configuration.**

Scenarios

- **Medium to large data centers/High-density server rooms/Cold plate liquid-cooled server rooms.**

Specification

Model			DWA-700W
Cooling Capacity		kw	70
Inlet/Outlet Liquid Temperature		℃(F)	20/28(68/82.4)
Inlet/Return Air Temperature		℃(° F)	24/38(75.2/100.4)
Airflow		m^3/h	18000
Rated Power		kW	2.5
Static Pressure of Air Delivery		Pa	30
Pipe Connections		DN	DN40
Fan Hot Swapping		/	Support
Power Supply System		/	AC1/PE 100~240V 50/60Hz AC3/N/PE 380~480V50/60Hz
Filtration		/	G2
Dimensions	Width	mm(inch)	1200(47)
	Depth	mm(inch)	350(14)
	Height	mm(inch)	2000/2200(78/87)

Chilled Water Rear Door Heat eXchanger

Features

- Features an integrated design of heat exchangers and fans for **easy installation and deployment.**
- **Adjustable fan speed and water valve opening according to demand,allowing for dynamic cooling capacity adjustment.**
- **Intelligent control program for real-time monitoring and control to ensure the safe and stable operation of the unit.**
- **Expert-level fault diagnostics for easy maintenance and operaton.**
- Supports Modbus RTU,with an optional TCP/IP **configuration.**



Scenarios

- **Medium to large data centers/High-density server rooms/Cold plate liquid-cooled server rooms.**

Specification

Model			DWA-300D	DWA-500D
Cooling Capacity		kW	30	50
Inlet/Outlet Liquid Temperature		℃	15/23(59/73.4)	
Inlet/Return Air Temperature		℃(F)	38(100.4)	
Airflow		m^3/h	6600	10000
Rated Power		kW	1.3	1.8
Maximum Allowable Power		kW	1.5	2.0
Static Pressure of Air Delivery		Pa	30	
Pipe Connections		DN	DN32	
Fan Hot Swapping		/	Support	
Power Supply System		/	AC1/PE 100~240V 50/60Hz	
Dimensions	Width	mm(inch)	600(24)	
	Depth	mm(inch)	200(8)	350(14)
	Height	mm(inch)	2000/2200(79/87)	

Chilled Water In-Row Air Conditioner

Features

- **Centralized cooling source with high eficiency.**
- Half/Full-Rack in width,**fitting for Modular Data Center.**
- **Non-power-consuming wet membrane humidification components.**
- **Dynamically adjust Fan speed and valve based on cooling capacity** needs.
- **Well-known brands key components.**
- **High return air temperature design enhances energy efficiency.**
- **Supports Modbus** RTU, **with optional** TCP/IP.



Scenarios

- **medium to large-sized DC/high-density DC.**
- **DC with limited installation conditions.**

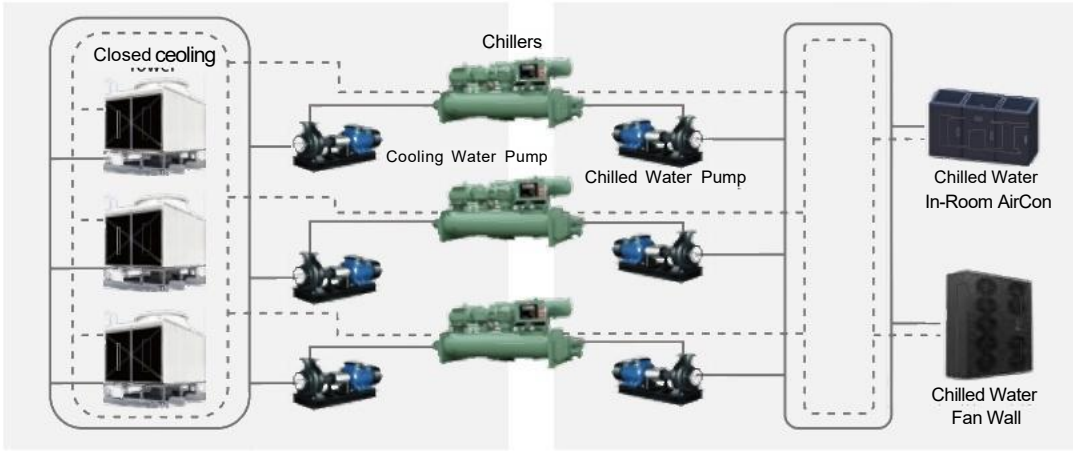
Specification

Model		DWA-350L	DWA-700L
Cooling Capacity	kw	35	70
Inlet/Outlet Liquid Temp	℃	7/12	
Inlet Air Temp	℃	38	
Airflow	m^3/h	6400	12000
Rated Power	kW	1.8	3.3
Pipe Diameter	DN	32	40
Power Supply	/	AC 1/PE 208~240V50/60Hz	AC3/N/PE380~480V50/60HZ
Fan Hot Swapping	/	Support	
Dimensions	Width	mm	300	600
	Depth	mm	1200	
	Height	mm	2000/2200	

Co-Source for Air-Cooling and Liquid-Cooling Solution

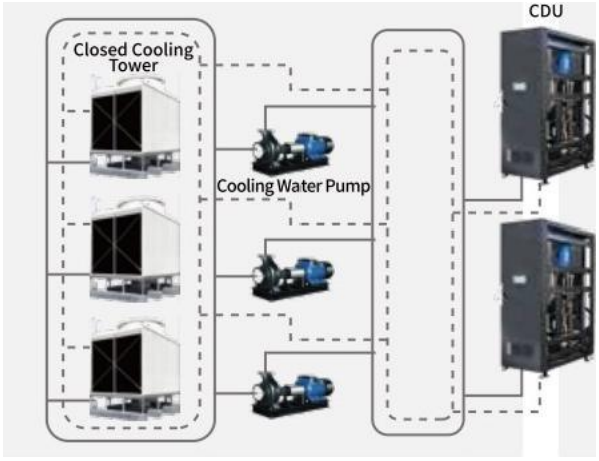
Traditional AIDC Cooling Source

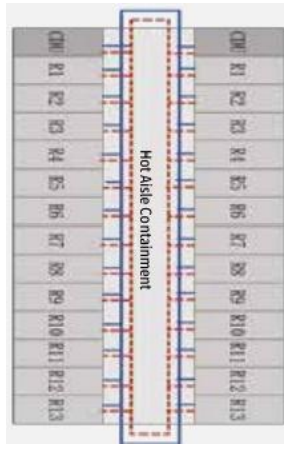
AIDC Air-Cooling System



Cooling Water System　　Chilled Water System

AIDC Liquid-Cooling System





Primary Side　　Secondary Side

AIDC Separated Cooling Source

01 **Need two independent cooling sources,piping,and control units,which occupies computer room space and increases initial costs.**

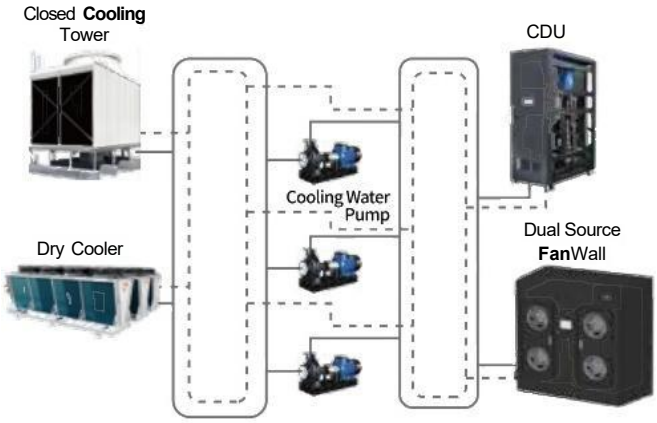
In the planning stage of an AIDC,it is difficult to determine the Air-Liquid Ratio.It is prone to resource misallocation due to estimation deviations, which may affect efficiency or scalability.

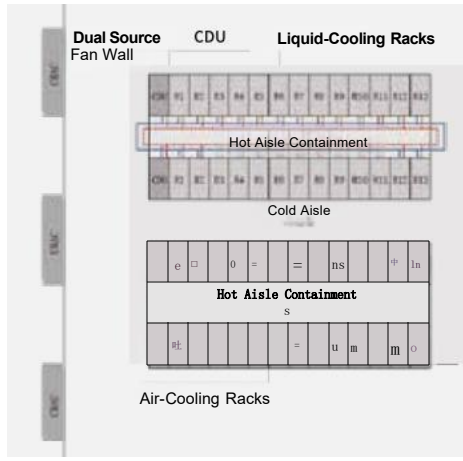
Complex maintenance,requiring separate maintenance for each system, which significantly increases labor and time costs.

Co-Source for Air-Cooling and Liquid-Cooling

Principle

AIDC Air Conditioner:Co-Source





Features

Flexible Deployment

Expandable in phase according to total cooling capacity growth by adding dual-source devices. Flexibly upgrade from Air-Cooling to Liquid-Cooling.

High Adaptability

Compatible wth new-built and upgraded Data Cente. NO **need to reconstruct infrastructure.**

Easily integrate into existing system,easy deployment.

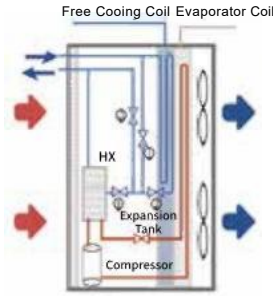
Lower CAPEX and OPEX

Co-Source for Air-Cooling and Liquid-Cooling, which saves building space,enables rapid deployment,and reduces CAPEX and OPEX.

Significant energy-saving

With free-cooling,intelligently adjusts cooling output, align with the concept of green development.

Co-Source for Air-Cooling and Liquid-Co



Three operating modes of the dual System Fan Wall:

- **Compressor Mode: Valve 1 fully open, Valve 2 closed; Valve 3 closed, Valve 4 regulated.**
- **Hybrid Mode: Valve 1 closed, Valve 2 fully open; Valve 3 regulated, Valve 4 regulated.**
- Free Cooling Mode: Compressor off, Valve 1 **closed, Valve 2 fully open; Valve 3 regulated, Valve 4 closed.**







Specification

Model		DWCA-400L	DWCA-1500W
Type	/	Dual Source In-Row	Dual Source Fan Wall
Cooling Capacity	kw	40	150
Inlet Air temp	℃	38	37
Airflow	m³/h	12000	60000
Mechanical Cooling Power	kw	13	44
Free Cooling Power	kw	3.3	12
Mechanical Cooling Liquid Inlet	℃	⩾33	
Free Cooling Liquid Inlet	℃	⩽18	⩽22
Pipe Diameter	DN	/	50
External Static Pressure	pa	/	150
Power Supply	/	380~415V, 3Ph, 50/60HZ	
Filtration	/	G4	
Dimensions — Width	mm	600	2000
Dimensions — Depth	mm	1200	1400
Dimensions — Height	mm	2000	2100

Direct eXpansion Precision Air Cooling Solution

External Cabinet Backpack Aircon



Features

- This product series is designed for outdoor container data centers,communication **rooms,outdoor battery cabinets,and similar applications,providing a suitable temperature for the working environment.**
- **Theintegrated design is easy to** install **,seamlessly integrates with the cabinet, and can operate automatically once powered.**
- **The product features multiple modes and intelligently determines the optimal temperature control solution.**
- Customized products can be ordered individually(anti-corrosion,dust-proof, **special power supply configurations,etc.).**
- **It provides passive alarm signals and digital communication interfaces.**
- The product uses environmentally friendly refrigerants and complies with **the RoHS standard.**

Specification

Model		DCA-100HR	DCA-125HR	DCA-150HR	DCA-200HR	DCA-250HR	DCA-300HR	DCA-400HR
Cooling Capacity	kW	10	12.5	15	20	25	30	40
Power Supply System	/	380~415V, 3Ph, 50/60HZ						
Rated Current	A	8.9	11.1	12.6	15.8	18.6	24.7	27.7
Airflow	m^3/h	3000		5300	6500	8200		11000
Input Power	kW	5	6.3	6.8	9.1	11.4	13.6	18.2
Ambient Temperature	℃	-40~50						
Dimensions Width	mm	850		890			995	
Dimensions Depth	mm	460		705			1297	
Dimensions Height	mm	1930		2145		2100		2400

Notes:

1. **Nominal condition:Indoor 27.0℃/50%RH,**outdoor 35.0℃.
2. **Nominal condition:Indoor 24.0℃/50%RH,outdoor 35.0℃.**

Built-in Integrated Precision Aircon



Features

- **Provides a suitable working environment for outdoor container data centers,** communication equipment rooms,outdoor battery cabinets,and other similar **scenarios.**
- Integrated design,with easy installation within the container for easy transportation.It is simple to operate and can run automatically upon power supply.
- **Multiple modes,including cooling mode,heating mode,and dehumidification** mode(optional).
- **Provides passive alarm signals and digital communication interfaces.**
- **Adopting a high static pressure design with front air return and up air suppy, which is more suitable for the containers air supply**
- **Uses environmentally friendly refrigerant,compliant with RoHS standards.**

Specification

Model		DCA-100NR	DCA-125NR	DCA-150NR	DCA-200NR	DCA-250NR	DCA-300NR	DCA-350NR
Cooling Capacity	kW	10	12.5	15	20	25	30	35
Power Supply System	/	380~415V, 3Ph, 50/60HZ						
Rated Current	A	9.2	11.4	13.5	14.4	21.6	25.2	28.1
Internal Circulation Airflow	m^3/h	3900		5300	6000	8200		11000
Input Power	kW	5	6.3	7.5	9.1	11.4	13.6	15.9
Ambient Temperature	℃	-40~50						
Dimensions Width	mm	800	850	800			900	
Dimensions Depth	mm	650				700		870
Dimensions Height	mm	1975				2100		

Notes:

1. **Nominal condition:Indoor 27.0℃/50%RH,outdoor 35.0℃.**
2. Nominal condition:Indoor 24.0℃/50%RH,outdoor 35.0℃.

DX Rack Aircon

Features

- Full varable capacity design, **with an energy efficiency ratio up to 3.5.**
- Compact design,providing more U-space for users.
- **Equipped with a powerful drainage pump component to eliminate the risk of "water hazards"inside the cabinet.**
- **Microcomputer intelligent control system for real-time monitoring.**
- In-Rack Aircon suitable for cabinets with depths ranging from 1000mm to 1400mm.
- **Bothindoor and outdoorunits come with quick connectors pre-installed,** pre-charged with refrigerant,and no welding during on-site installation.



Specification

Model			DCA1-401	DCA1-501	DCA1-801	DCA1-1301
Cooling Performance	Total Capacity*	kW	3.5	5	7.5	12.5
	Sensible Capacity*	kW	3.5	5	7.5	12.5
	EER	W/W	3.20	3.20	3.20	3.20
Refrigerant		-	R410A			
Fan	Type	-	EC			
	Quantity	n	2	2	1	2
	Air flow	m^3/h	800	1100	1650	2200
Air Filter		-	g2			
Electric Heater Power		kW	1.0			2.0
Humidifier	Type	-	Wet-film			
	Capacity	kg/h	1.0	1.0	1.5	3.0
Dimensions	Width	mm	443			
	Depth	mm	715			
	Heightt	mm	218		351	440
Net Weight		kg	27	28	36	42
Power Supply		-	208-240V, 1Ph, 50/60Hz			
Max Current		A	11.5	16.5	20	35
Outdoor Unit Model		Unit	DHA-40L	DHA-50L	DHA-80L	DHA-130L
Required Quantity		-	1			
Net Weight		kg	30	34	60	85
Compressor	Type	-	Inverter			
	Quantity	n	1			
Fan	Type	-	AC			
	Quantity	n	1			2
Dimensions	Width	mm	794		1045	
	Depth	mm	310		431	
	Height	mm	537		760	1375

Note:

1.*Nominal condition:Indoor 35.0℃/24%RH,outdoor 35.0℃.

2.The parameters will refer the latest updated product spec.

DX Small Precision Aircon

Features

- **High airflow and low enthalpy difference design meets the needs of various computer room environments**
- Full inverter high-efficiency compressor with low starting current and stable operation.
- Equipped with EC fans for optimal system performance and high energy efficiency.
- **RS485 interface with multi-level password protection.**
- 7-inch true color touchscreen with a user-friendly interface.
- **Optional low-temperature components for reliable operation in outdoor** ambient temperatures ranging from-35 to 45℃.



Specification

Model			DCA1-80F	DCA1-130F	DCA1-200F	DCA1-300F
Refrigeration Method		/	Air-Cooled			
Refrigerant		/	R410a			
Air Delivery Method		/	**Top Front Air Supply**			
Rated Voltage/Frequency		/	380~415V, 3Ph, 50/60Hz			
Cooling Capacity		kW	7.5	12.5	20	30
Sensible Cooling Capacity		kW	6.8	11.3	18	27
Annual Energy Efficiency Ratio(AEER)		/	**4**			
FLA		A	13.0	**16.5**	**26.3**	**39.0**
Standard Airflow Rate		m^3/h	2200	**3600**	**5500**	7500
Fan	Type	/	**EC Fan**			
	Quantity	unit	1			
CompressorQuantity		unit	1			
Heating Power		kW	3			6
Humidification Rate		kg/h	1.5		**3**	
Indoor Unit Size	Width	mm	**550**	**650**	**800**	**900**
	Depth	mm	**450**		**650**	**750**
	Height	mm	**1800**			1975
Weight		kg	118	**138**	**174**	220
Outdoor Unit Model		/	DHA-80L	**DHA-130L**	**DHA-200L**	DHA-300L
Outdoor Unit Size	Width	mm	728		1020	1300
	Depth	mm	405			740
	Height	mm	762	1370		1216

Notes:

1.Standard operating conditions:Indoor ambient temperature 24℃,**wet-bulb temperature 17℃,outdoor ambient temperature 35℃.**

2.The unit is available with single cooling/constant temperature and humidity,**and the maximum working current and recommended circuit breaker are configured according to the constant temperature and humidity unit.**

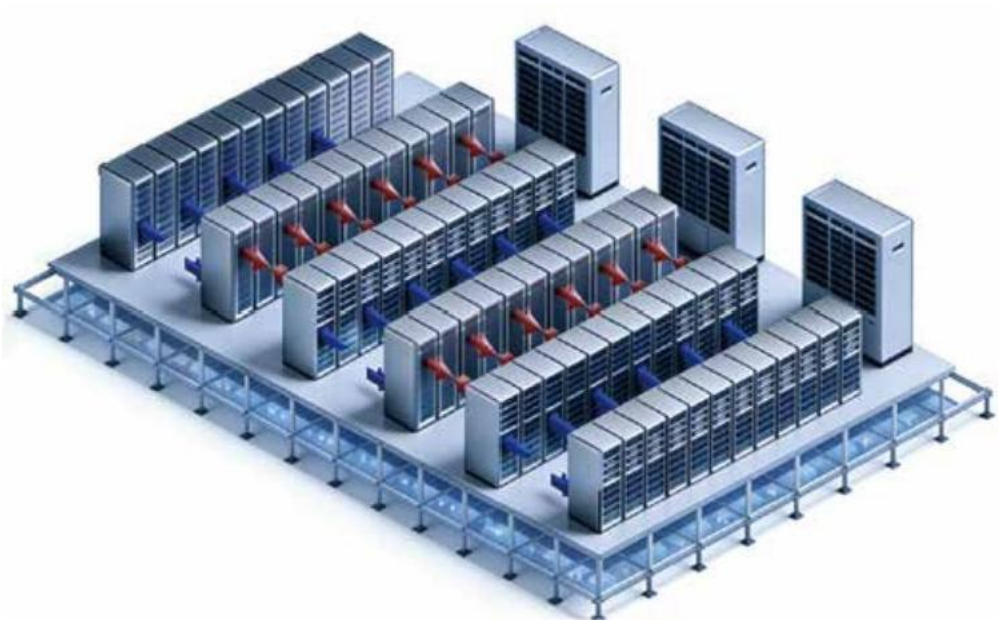
3.The connection pipe size in the table is based on the equivalent distance of 30m between the indoor unit and the **condenser with a height difference***△H:-5m≤△H≤10m.

4.If the required data is not listed in the table,please contact TONFY

DX Computer Room Precision Aircon

Features

- Medium to large-scale IDC data centers/telecommunication rooms/archives/electrical distribution rooms/laboratories/electronic **instrument factories and other scenarios.**



Product Introduction

Energy-efficient

·Equipped with high-efficiency variable frequency **compressors;**

• Variable air volume EC fans with infinite variable frequency adjustment;

·**High-efficiency and environmentally friendly** refrigerant R410a.

Flexible Configuration

·Multiple air delivery options available,including **up air supply and down air supply;**

·Can meet various power supply specifications: 380-415V,3-**phase,**50/60Hz **power supply.**

Intelligent Control

·Standard with a 7-inch LCD **touch screen for an** attractive interface;

·Equipped with an RS485 interface and multi-level **password protection;**

·Supports group control,**allowing for networking and coordination of up to 32 units.**

Quick Installation

• Designed with a modular concept for quick installation;

• Full front maintenance access.





Specification

Model			DCA1-250F	DCA1-300F	DCA1-400F	DCA1-500F	DCA1-600F	DCA1-800F	DCA1-1000F	DCA1-1200F
Refrigeration Method		/	Air-Cooled							
Air Delivery Mode		/	Up/down							
Power Supply		/	380~415V, 3Ph, 50/60HZ							
Cooing Performance		kW	23.5	27.5	36.5	46.5	56.5	74.5	92.5	110.5
Air Flow		m^3h	8000	9000	11000	13500	16000	21500	27500	32000
Fan Type		/	EC Fan							
FanQuantity		set	1				2			
Number Of Compressors		set	1				2			
HeatingPower		kW	6		9					
Humidification Capacity		kg/h	10					15		
Refrigerant		/	R410A							
Pipe Size	Liquid pipe	mm	16		19		16	19		
	Gas pipe	mm	19		22		19	22		
Dimension	Width	mm	700	800	1000	1100	1550	1950		
	Depth	mm	1000							
	Height	mm	2000							
Net Weight Of Indoor Unit		kg	260	305	350	380	600	640	680	720
Max Current		A	40	50	63	63	80	100	125	125
Outdoor Unit-Flat Model		/	DHA-550P	DHA-550P	DHA-660P	DHA-880P	DHA-550P*2	DHA-660P*2	DHA-880P*2	DHA-990P*2
OutdoorUnit-VModel		/	DHA-550V	DHA-550V	DHA-660V	DHA-880V	DHA-550V*2	DHA-660V^2	DHA-880V*2	DHA-990V^2

Notes:

1. **Standard operating conditions:Indoor return air temperature 24℃,relative humidity 50%,air-cooled outdoor ambienttemperature 35**℃,ESP=100Pa.

2.The unit is available with single cooling/constant **temperature and humidity,and the maximum working current andrecommended circuit breaker are configured according to the constant temperature and humidity unit.**

3.Please consult with TONFY before installing the connection pipe to confirm whether the pipe diameter and lengthrequire additional measures such as pipe extension components.

4.If the required data is not listed in the table,please contact TONFY.

DX In-Row Precision Aircon

Features

DXIn-Row Aircon is a temperature control product developed for modular data centers and high heat density computer rooms. This product uses near-end cooling,high return air temperature design,and the fan is designed with redundancy,making it high energy-efficiency,safety,and reliability.



Specification

Model			DCAI-250L	DCA1-400L	DCA1-500L	DCA1-600L
Refrigeration Method		/	Air-Cooled			
Air Delivery Mode		1	Front Air Supply			
Rated Voltage/Frequency		/	380~415V, 3Ph, 50/60Hz			
Cooling Capacity		kW	25	40	50	60
Maximum Operating Current Of the Unit FLA		A	37	50.2	54	57.2
Standard Airflow		m^3/h	5000	8000	10800	12000
Fan	_Type___	/	EC Fan			
	Quantity	unit	6	2	3	
Number of Compressors		unit	1			
Heating Power		kW	3	6	9	
Humidification Capacity		kg/h	1.5	3	4.5	
Connection Pipe	Liquid pipe	mm	15.88		19.05	
	Gas pipe	mm	19.05		22	
Dimensions	Width	mm	300	600		
	Depth	mm	1100/1200			
	Height	mm	2000/2200			
Weight		kg	210	250	310	
FLA		A	40	63		
Outdoor Temperature (45° ℃)(113° F)	Flat Panel Outdoor Unit	mm	DHA-440P	DHA-660P	DHA-880P	DHA-990P
	Centralized Outdoor Unit	mm	DHA-440V	DHA-660V	DHA-880V	DHA-990V

Notes:

1.Standard operating conditions:Indoor return air temperature 37℃,relative humidity 24%,air-cooled outdoor ambient temperature 35℃,ESP=10Pa.

2.The unit is available with single cooling/constant temperature and humidity,and the maximum working current and recommended circuit breaker are configured according to the constant temperature and humidity unit.

3.Please consult with Tongfei before installing the connection pipe to confirm whether the pipe diameter and length require additional measures such as pipe extension components.

4.If the required data is not listed in the table,please contact TONFY.

DX Precision Aircon(Refrigerant Pump)

Fluorine Pump Air Cooling Precision Aircon for computer rooms integrates components such as axial flow fans and full DCinverter fluorine pumps.It is designed to maximize the use of free **cooling,effectively reducing the operational energy consumption and temperature control costs of data centers.It is suitable for small,medium,and large IDC data centers,communication rooms,and** other similar scenarios in most regions allaround the world.

Climate data for free cooling available in selected cities

Project	Hamburg	London	Moscow	Tapera	Madrid	Istanbul	New York	Beijing	Johannesburg
Annual hours with temperature not exceeding 18℃	8247	8014	**7805**	7786	6338	6224	5997	5563	4833
Annual Percentage	95%	91%	**89%**	89%	72%	71%	68%	63%	55%

1.**Annual hours with temperature below or equal to 18℃.**
2.**Percentage of annual hours with temperature below or equal to 18℃.**

Features

Energy-efficient

·Equipped with high-efficiency variable frequency **compressors;**
·Variable air volume EC fans with infinite variable **frequency adjustment;**
·High-efficiency and environmentally friendly refrigerant R410a.

Flexible Configuration

• **Multiple air delivery methods available,including** top air supply and bottom air supply;
·**Wide power supply range:Can accommodate** 380V-415V±15%3N~50Hz±2Hz power supply.

Intelligent Control

·Standard with a 7-inch LCD **touch screen for an attractive interface;**
·Equipped with an RS485 interface and multi-level password protection;
·Supports group control,enabling networking and **coordination of up to 32 units.**

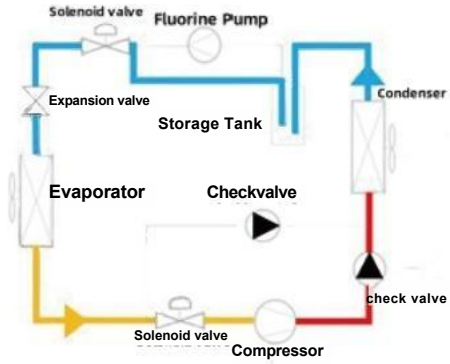
Rapid Installation

• **Designed with a modular concept for quick installation;**
• **Full front maintenance access.**

DX Precision Aircon(Refrigerant Pump)

- **Outdoor environment>15℃**

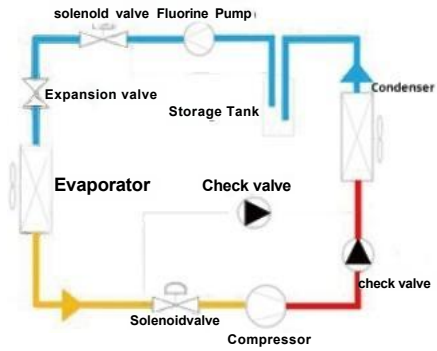
When the outdoor ambient temperature is high, the compressor is activated for conventional compressor cooling.



Compressor Mode

- **5℃<Outdoor environment≤15℃**

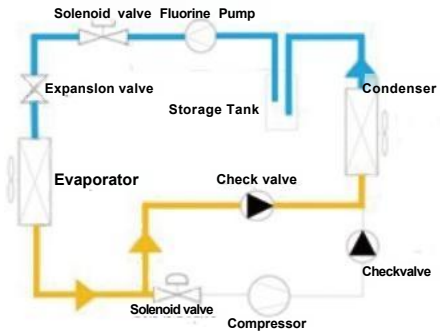
The refrigerant pump unit and the compressor operate together,enhancing the overallefficiency **of the unit.**



Hybrid Mode

- **5℃≥Outdoor environment**

When the outdoor ambient temperature is low,the compressor cooling is turned of to fully utilize natural cold sources and reduce system energy consumption.



Natural Cooling Mode

DX Small Precision Aircon(Refrigerant Pump)





Specification

Model			DCA1-130FP	DCA1-200FP
Cooling Performance	Total Capacity*	kW	12.5	20
	Sensible Capacity*	kW	11.25	18.00
Refrigerant		-	R410A	
Fan	Type		EC	
	Quantity	n	1	
	Air flow	m³/h	3600	5500
	ESP	Pa	20	
	Air supply	-	Forward air supply	
Compressor	Type		Inverter	
	Quantity	n	1	
Air Filter		-	G2	
Electric Heater Power		kw	3.0	
Humidifier	Type	-	Wet-film	
	Capacity	kg/h	1.5	3.0
Dimensions	Width	mm	650	800
	Depth	mm	450	650
	Height	mm	1800	1800
Net Weightt		kg	138	174
Power Supply		-	380-415V, 3Ph, 50/60HZ	
Max Current		A	16.5	26.3
Pipe Size	Liquid pipe	mm	9.52	12.7
	Gas pipe	mm	19.05	19.05
Outdoor Unit Model		-	DHA-130LP	DHA-200LP
Net Weight		kg	53	74
Fan	Type	-	AC	
	Quantity	n	2	2
Dimensions	Width	mm	728	1020
	Depth	mm	405	
	Height	mm	1370	1370

Note:

1.*Nominal condition:Indoor 35.0℃/24%RH,outdoor 35.0℃.

2.The parameters will refer the latest updated product spec.

DX Computer Room Precision Aircon(Refrigerant Pump)







Specification

Model			DCA1250FP	DCA1-300FP	DCA-400FP	DCA1-500FP	DCA1-600FP	DCA1-800FP	DCA1-1000FP	DCA1-1200FP
Refigeration Method		/	Air-Cooled							
Air Delivery Mode		/	Up/down							
Power Supply		/	380~415V, 3Ph, 50/60HZ							
CoolingPerformance		kw	23.5	27.5	36.5	46.5	56.5	74.5	92.5	110.5
Air Flow		m^3/h	8000	9000	11000	13500	16000	21500	27500	32000
Fan Type		/	EC Fan							
FanQuantity		set	1				2			
Number Of Compressors		set	1				2			
Heating Power		kW	6		9					
Humidification Capacity		kg/h	10					15		
Refrigerant		/	R410A							
Pipe Size	Liquid pipe	mm	16		19		16	19		
	Gas pipe	mm	19		22		19	22		
Dimension	Width	mm	700	800	1000	1100	1550	1950		
	Depth	mm	1000							
	Height	mm	2000							
Net Weight Of Indoor Unit		kg	260	305	350	380	600	640	680	720
MaxCurrent		A	40	50	63	63	80	100	125	125
Outdoor Unit-Flat Model		/	DHA-550PP	DHA-550PP	DHA-660PP	DHA-880PP	DHA-550PP*2	DHA660PP*2	DHA-880PP*2	DHA-990PP*2
OutdoorUnit-V/Model			DHA-550VP	DHA-550VP	DHA-660VP	DHA-880VP	DHA-550VP*2	DHA-660VP*2	DHA-880VP*2	DHA-990VP*2

Notes:

1.Standard operating conditions:Indoor return air temperature 24℃,relative humidity 50%,air-cooled outdoor ambienttemperature 35℃,ESP=100Pa.

2.The unit is available with single cooling/constant temperature and humidity,and the maximum working currentt andrecommended circuit breaker are configured according to the constant temperature and humidity unit.

3.Please consult with Tongfei before installing the connection pipe to confirm whether the pipe diameter and lengthrequire additional measures such as pipe extension components.

4.If the required data is not listed in the table,please contact TONFY.

DX Precision Fan Wall Air Con(Refrigerant Pump)

Features

- Horizontal air supply ensures uniform temperature gradient and minimizes air turbulence.
- The cold aisle maintains stable cold storage and consistent supply airtemperature with hot aisle containment.
- Fast and flexible deployment without raised floor.





Specification

Model			DCAI-1300WP	DCAI-2000WP
Refrigeration Method		/	Air-Cooled	
Air Delivery Mode		/	Front air supply	
Power Supply		/	380~415V, 3Ph, 50/60HZ	
Cooling Capacity		kW	155	208
Sensible Capacity		kW	150	200
Standard Airflow		m^3/h	37500	50000
SupplyAnd Return Air Temperature		℃	25/38	
Fan	Type	/	EC Centrifugal Fan	
	Quantity	Set	4	
Compressor Quantity		Set	2	
Heating Power		kW	12	18
humidification Capacity		kg/h	9	15
Indoor Unit Dimensions	Width	mm	2200	2600
	Depth	mm	1300	1300
	Height	mm	2500	2600
Weight	Net Weight	kg	980	1100
Max Current		A	100A	125A
Outdoor Unit Model		/	DHA-990VP*2	DHA-1320VP*2
Outdoor Unit Dimensions	Width	mm	2300	
	Depth	mm	1150	
	Height	mm	2200	

Notes:

1.Air-cooled outdoor ambient temperature 35℃,external static pressure adjustable from 50 to 150P.

2.For selection under different working conditions,please contact TONFY.

DX In-Row Precision Aircon(Refrigerant Pump)



Specification

Model			DCA1-250LP	DCA1-400LP	DCA1-600LP
Cooling Performance	Total Capacity*	kW	25.0	40.0	60.0
	Sensible Capacity	kW	25.0	40.0	60.0
Refrigerant		-	R410A		
Fan	Type	-	EC	-	-
	Quantity	n	6	2	3
	Air flow	m^3/h	5000	8000	12000
	ESP	Pa	10		
	Air supply	-	Front air supply		
Compressor	Type	-	INV Rotary	INV Rotary	INV Scroll
	Quantity	n	1		
Air Filter		-	G4		
Electric Heater	Type	-	PTC		
	Power	kW	3.0	6.0	9.0
Humidifier	Type	-	Wet-film		
	Capacity	kg/h	1.5	3.0	4.5
Dimensions	Width	mm	300	600	
	Depth	mm	1200		
	Height	mm	2000		
Net Weight		kg	210	250	310
Power Supply		-	380-415V, 3Ph, 50/60Hz		
Max Current		A	37.0	50.2	57.2
Pipe Size	Liquid pipe	mm	16		
	Gas pipe	mm	22		
	Humidifierinletpipe	-	G3/4"		
Outdoor Unit-Flat Type(45℃)		Unit	DHA-440PP	DHA-660PP	DHA-990PP
Outdoor Unit-V Type(45℃)		Unit	DHA-440VP	DHA-660VP	DHA-990VP

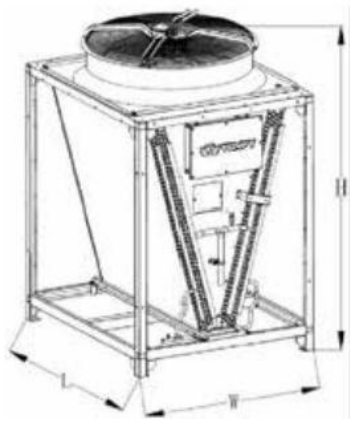
Note:

1.*Nominal condition:Indoor 35.0℃/24%RH,outdoor 35.0℃.

2.The parameters will refer the latest updated product spec.

V-Type Centralized Outdoor Unit





DX-Plus Room/DX InRow AirconOutdoor Unit-VType

Outdoor Unit Type	Fan Quantity	Weight	Dimensions(mm)		
	Set	(kg)	L	W	H
DHA-550V	1	150	880	980	1440
DHA-660V	1	225	1160	1225	1700
DHA-880V	1	225	1160	1225	2020
DHA-990V	1	240	1160	1225	2020

DX-Plus Room/DX InRow AirconOutdoor Unit-VType

Outdoor Unit Type	Fan Quantity	Weight	Dimensions(mm)		
	Set	(kg)	L	W	H
DHA-550VP	1	180	880	980	1440
DHA-660VP	1	255	1160	1225	1700
DHA-880VP	1	275	1160	1225	2020
DHA-990VP	1	300	1160	1225	2020
DHA-1320VP	2	320	2300	1150	2200
DHA-1760VP	2	380	2300	1150	2200

Notes:

1.If you need to select a non-def1.The variation in height dimensions is due to differences in fan heights among different brands.For details,please consult TONFY.

2.If you wish to select a non-default outdoor unit,please contact TONFY.

RISING
BuildTech



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