



## VCA series precision air conditioner ▶ solutions







## Product Description

VCA series base station precision air conditioner is a special precision air conditioner for small and medium-sized server rooms, power distribution rooms, battery rooms, communication base stations and other places, providing indoor environment temperature and humidity and cleanliness control. It is used to ensure that cabinet equipment, server equipment, industrial process equipment, communication equipment, UPS power supply, power distribution equipment, batteries, etc. have a reasonable temperature and humidity operating environment.

Direct expansion system, with air outlet for false floor.

## VCA Series Base Station Precision Air Conditioner



(5.5kW~20.5kW)

### Product Feature



Energy efficient



Safe and reliable



Intelligent control



Customizable





## Energy Efficient

- Large air volume, small enthalpy difference, high sensible heat ratio design, to meet the temperature control needs of the server room.
- High energy-efficient compressor with electronic expansion valve as standard for fast response and more accurate flow adjustment.
- High efficiency backward tilting centrifugal fan with low energy consumption and high air volume to ensure uniform temperature and humidity distribution in the server room.
- The use of high-efficiency internally threaded copper tubes and hydrophilic layer-plated open-window aluminum fin evaporators for higher heat transfer efficiency.
- Outdoor fan with infinitely adjustable speed control, matching condensing pressure operation, energy saving and noise reduction.
- Standard with electrode humidifier, higher humidification efficiency and wider application range.

## Safe and reliable

- Use of rigorously certified, high-quality devices to enhance reliability.
- Products are subjected to rigorous and repeated testing and verification, with high standards required for high quality delivery.
- 365 x 24 hours non-stop operation, long life design and low maintenance costs.
- Ultra-wide grid adaptability to avoid frequent start/stop of air conditioners.
- Highly efficient and environmentally friendly refrigerant R410A as standard.
- Threaded quick coupling design for no welding on site.



### ▶ Inverter

- Intelligent control system

### ▶ Evaporator

- “/” type evaporator, high heat exchange efficiency

### ▶ PTC Heater

- Fast heating startup
- Large heating capacity
- Uniform heat dissipation

### ▶ Electrode Humidifier

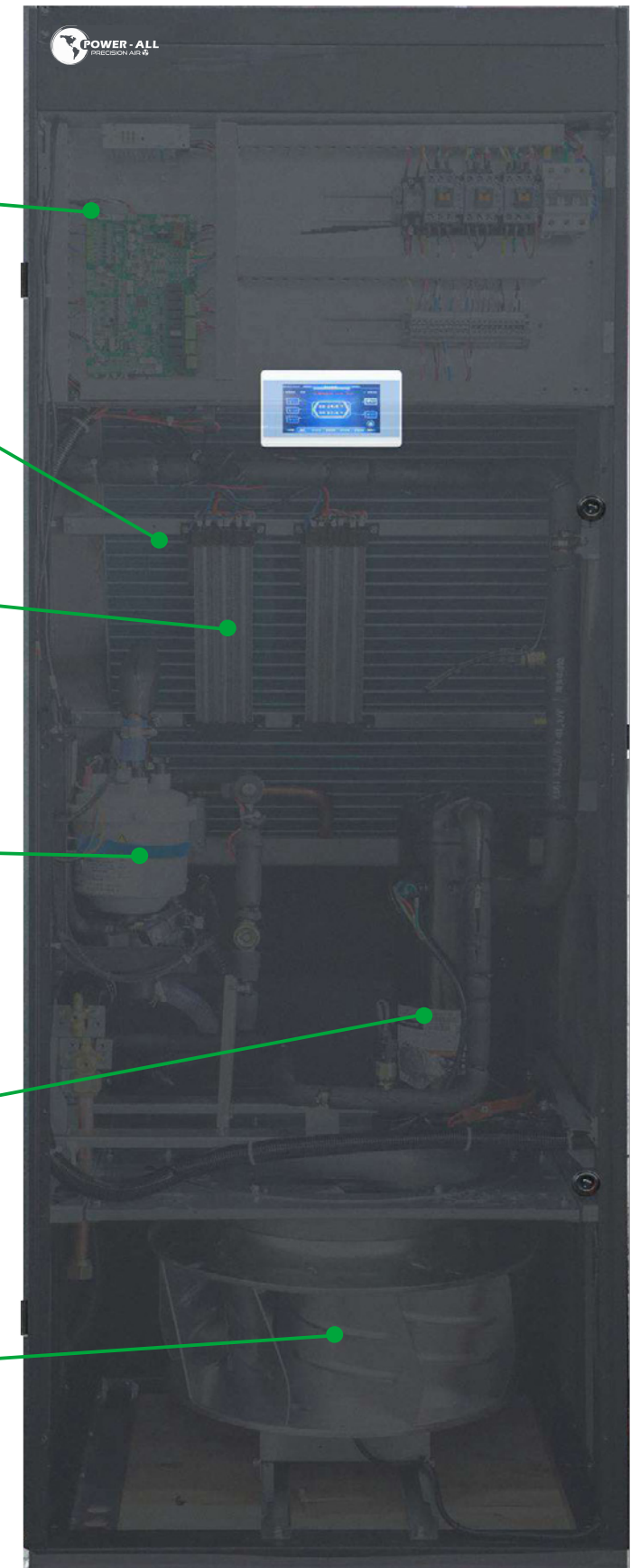
- Automatic control & clean
- Easy maintenance
- Water & energy conservation

### ▶ Compressor

- Brand: Copeland or Hitachi
- Low vibration and noise

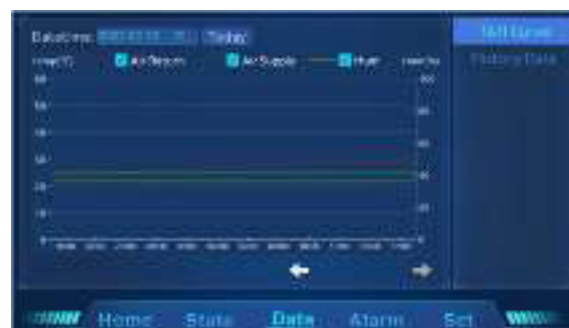
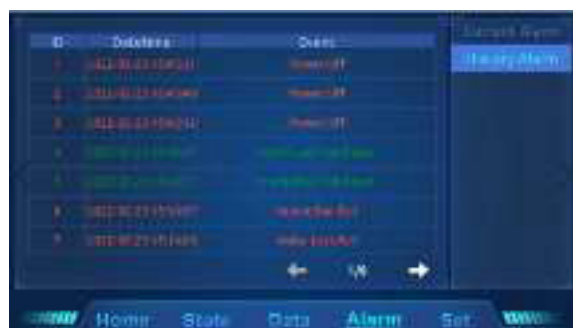
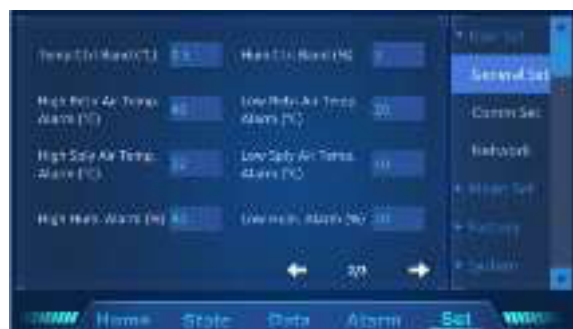
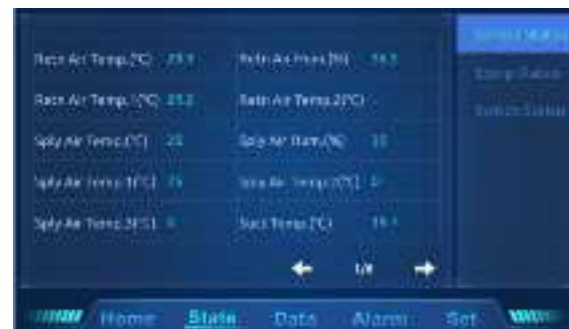
### ▶ Centrifugal Fan

- Large air volume
- Easy maintenance
- Direct driven



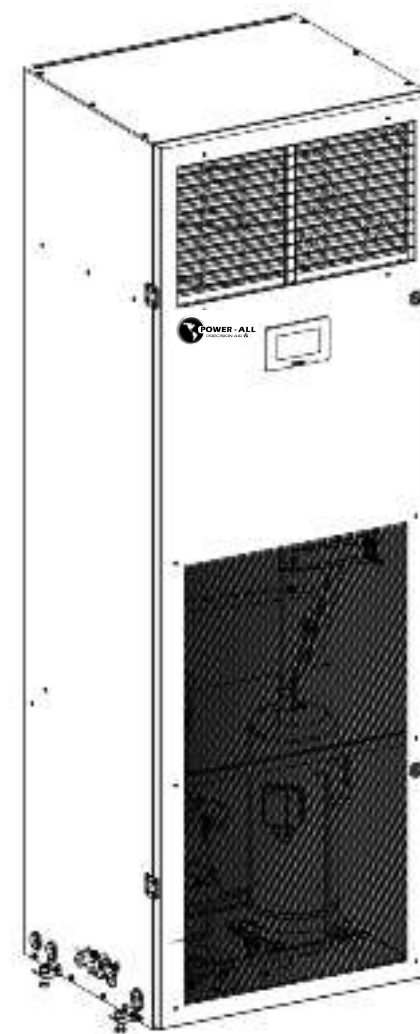
## Intelligent control

- 4.3-inch true color touch screen, multi-level password authority, system self-test diagnostic function, more intelligent;
- Comprehensive monitoring and display of power supply voltage, frequency, phase sequence, cooling capacity, air volume, temperature and humidity curve and other key information, real-time control of the normal state of the system;
- Up to 64 air conditioners can be rotated patrol group control to achieve scheduled rotation, fault rotation, cascading, demand synchronization, anti-competitive operation, etc;
- Support power-on self-start and timer on/off functions, easy to manage air conditioners;
- Local storage of not less than 1000 history records, easy to view and trace;
- Standard RS485 interface, support optional SNMP interface.

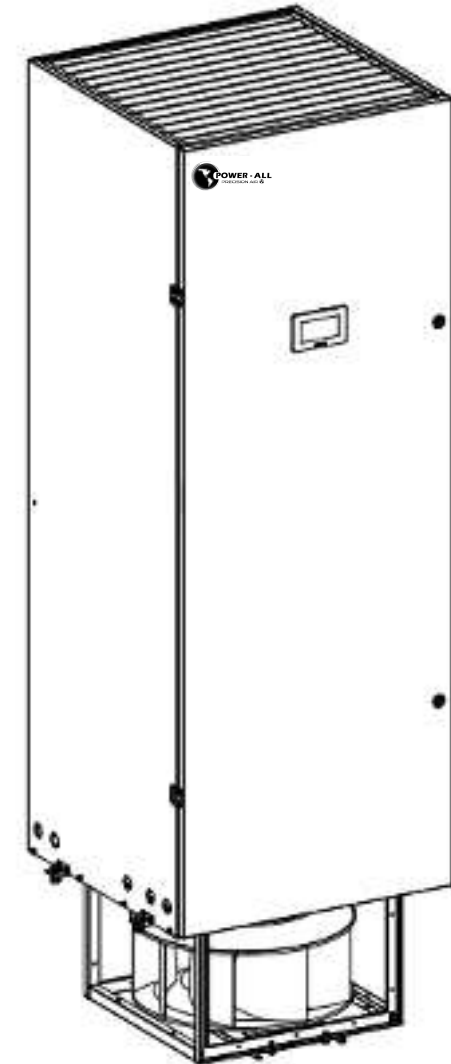


## Customizable

- Standard with electrode humidifier, support optional wet film humidifier;
- 100% full frontal maintenance and more flexible installation;
- Support optional upper pipe / upper drainage to meet the needs of different scenarios;
- Support AC/EC fans optional according to actual needs;
- Optional dual power input;
- A variety of air supply methods to meet a variety of applications;
- Optional phase tolerance function to better protect the power of air conditioners.



Top Front Supply



Downflow Supply(Fan sinking)

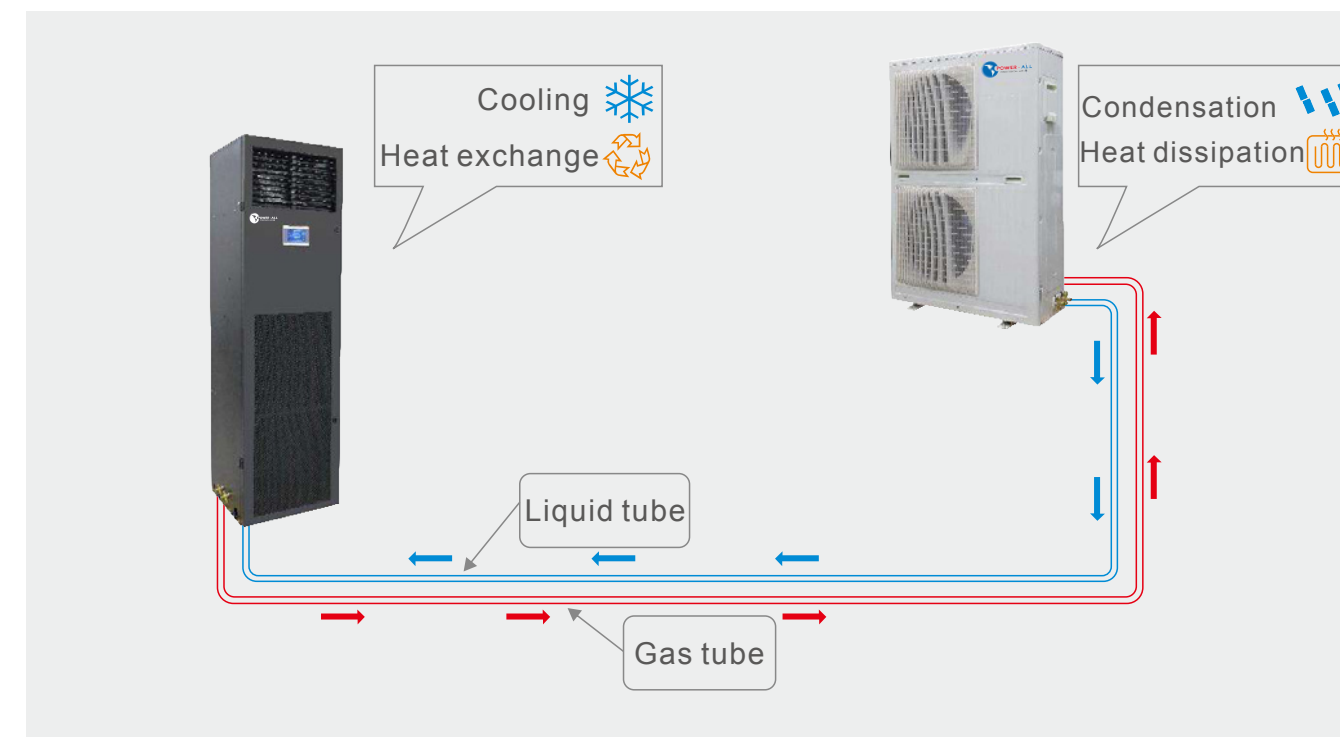
## Technical parameters

Unit	PA VCA-005	PA VCA-007	PA VCA-012	PA VCA-017	PA VCA-020	
Configuration	Refrigeration type/Constant Temperature&Humidity type					
Total cooling capacity	kW	5.5	7.5	12.5	17	20.5
Sensible heat ratio	W/W	0.9	0.9	0.9	0.9	0.9
Refrigerant Type	R410A					
Expansion valve Type	Electronic expansion valve					
Air volume	m3/h	2000	2300	3200	5000	5500
Heating capacity	kW	3	3	3	6	6
Humidification capacity	kg/h	3	3	3	3	3
Width	mm	520	520	600	700	700
Depth	mm	420	420	520	700	700
Height	mm	1750	1750	1800	1900	1900
Grid type	-	220V/50Hz/60Hz		380V/460V/50Hz/60Hz		
Refrigeration type full load current	A	10.5	14.9	10.8	14.3	14.6
Constant T&H type full load current	A	23	25	18.2	20	20
Weight	kg	62	65	100	120	130
Outdoor unit						
Model	-	VCP007SF-O	VCP010SF-O	VCP018SF-O	VCP024SF-O	VCP028SF-O
Grid type	-	220V/50Hz/60Hz				
Width	mm	840	830	832	1050	1050
Depth	mm	285	311	330	400	400
Height	mm	606	720	1246	1560	1560
Weight	kg	28	32	50	90	90

Remarks:

- 1.The above performance parameters are based on, indoor return air 24°C, relative humidity 50%, outdoor temperature 35°C
- 2.The base station precision air conditioner is divided into two different air supply methods: top front air supply and downflow air supply
- 3.Base station precision air conditioner under the fan type is divided into two forms of fan sinking and not sinking

## Operating principle



## Outdoor unit





## Application scenarios



▶ Control room



◀ Equipment Lab



▶ Small-scale server room



◀ Communication base station

## Applications



Product: 4 **VCA0040** & 2 **VCA007**  
Series: Base station AC  
Time: 2021  
Location: Hainan Province China



Product: 2 **VCR012AH**  
Series: In-row AC  
Time: 2021  
Location: Jiangsu Province China



Product: **VCR012AH**  
Series: In-row AC  
Time: 2021  
Location: Jiangsu Province China



Product: 2 **VCR025**  
Series: In-row AC  
Time: 2021  
Location: Jiangsu Province China



Product: **VCA035**  
Series: Large room AC  
Time: 2021  
Location: Henan Province China



Product: **VCA035**  
Series: Large room AC  
Time: 2021  
Location: Jilin Province China



Product: **VCA040**  
Series: Large room AC  
Time: 2021  
Location: Anhui Province China



Product: **VCA030**  
Series: Large room AC  
Time: 2021  
Location: Jilin Province China



Product: **VCR025**  
Series: In-row AC  
Time: 2021  
Location: Jiangsu Province China