

Trusted Provider of Network Power Solution



VCA series precision air conditioner ► solutions

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INVT NETWORK POWER (SHENZHEN) CO.,LTD.

invt

Stock code: 002334

Company Profile

Shenzhen INVT Network Power (Shenzhen) Co., Ltd. is a subsidiary of Shenzhen INVT Electric Co., Ltd. (stock code: 002334). Focus on the R&D, production and application of integrated solutions for key infrastructure of data centers. Empower the construction of informatization and provide a safe, reliable, technologically advanced, intelligent, flexible, green, energy-saving, and economical and applicable data center key infrastructure "base" for data transmission, calculation, and storage.

Focusing on R&D and production of micro-modules, environmental refrigeration, and intelligent monitoring, integrating power distribution, UPS, batteries, etc., to provide you with four "Smart" series of integrated data center solutions. According to the relevant standards of GB50174 and TIA-942, the standardized and modular design is fully adopted to realize the advantages of rapid deployment, flexible expansion, intelligent operation and maintenance, and green efficiency.

Our team has more than 15 years of experience in the data center industry and has a thorough understanding of the data industry. Rich experience in research and development, strong technical capabilities, and advanced technical concepts. It has advanced informatization and intelligent supply chain management methods and service capabilities such as MES production, ERP planning, OA office, PDM data management, CRM customer relations, and TMS logistics management.

We will "make every effort to provide value-for-money products and services, and make customers more competitive" as our mission.



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Product Description





VCA series base station precision air conditioner of INVT 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.

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

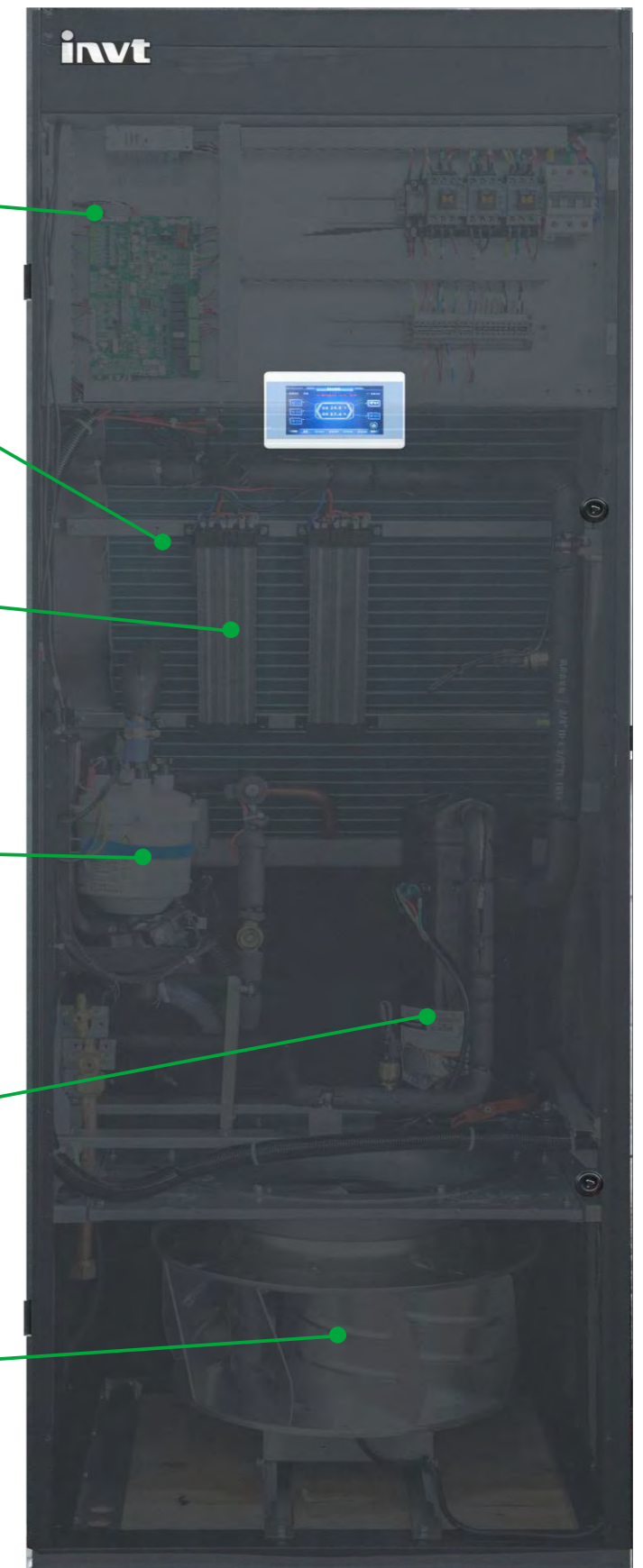
- ▶ **Evaporator**
 - “/” type evaporator, high heat exchange efficiency

- ▶ **PTC Heater**
 - Fast heating startup
 - Large heating capacity
 - Uniform heat dissipation

- ▶ **Electrode Humidifier**
 - Automatic control & clean
 - Easy maintenance
 - Water & energy conservation

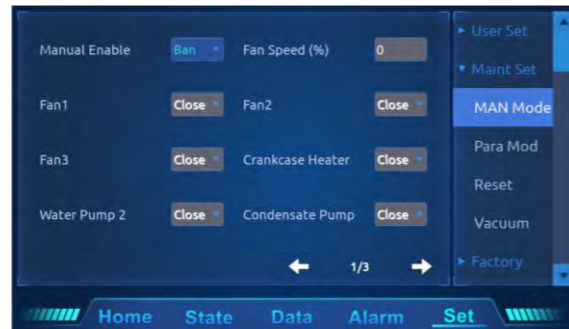
- ▶ **Compressor**
 - Brand: Copeland or Hitachi
 - Low vibration and noise

- ▶ **Centrifugal Fan**
 - Large air volume
 - Easy maintenance
 - Direct driven



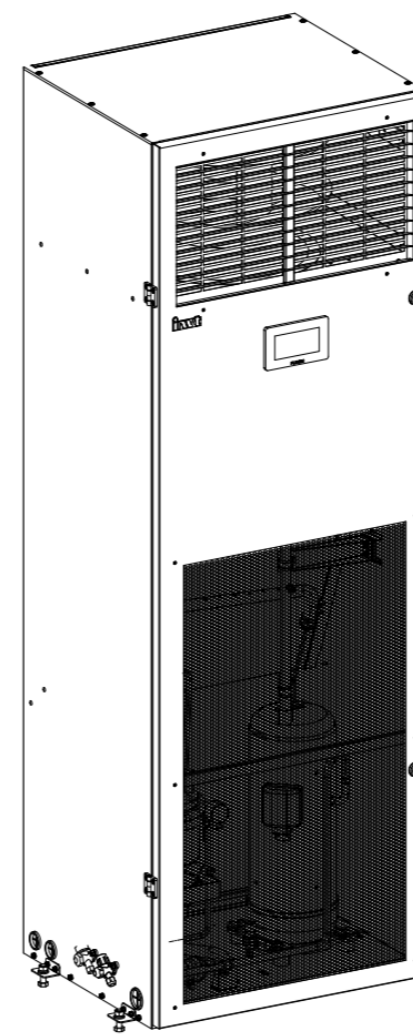
Intelligent control

- 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.

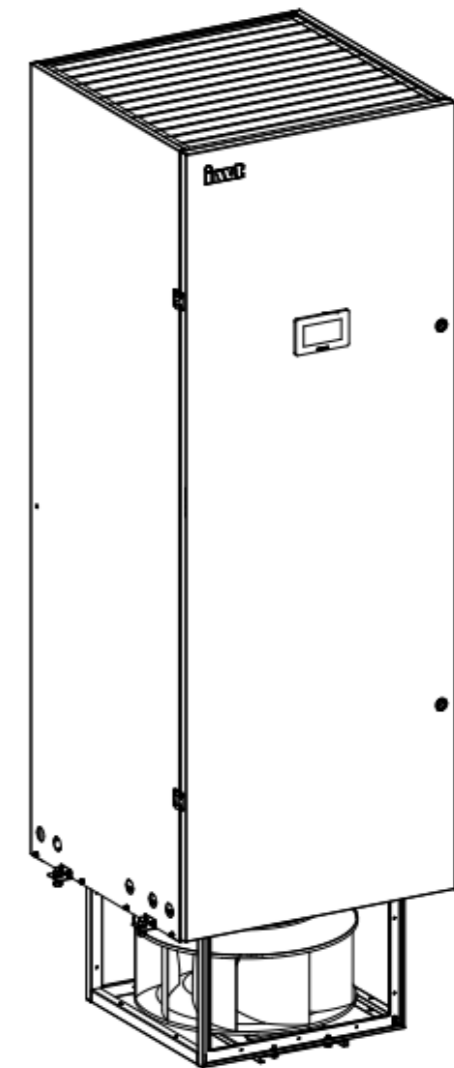


Customizable

- 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)

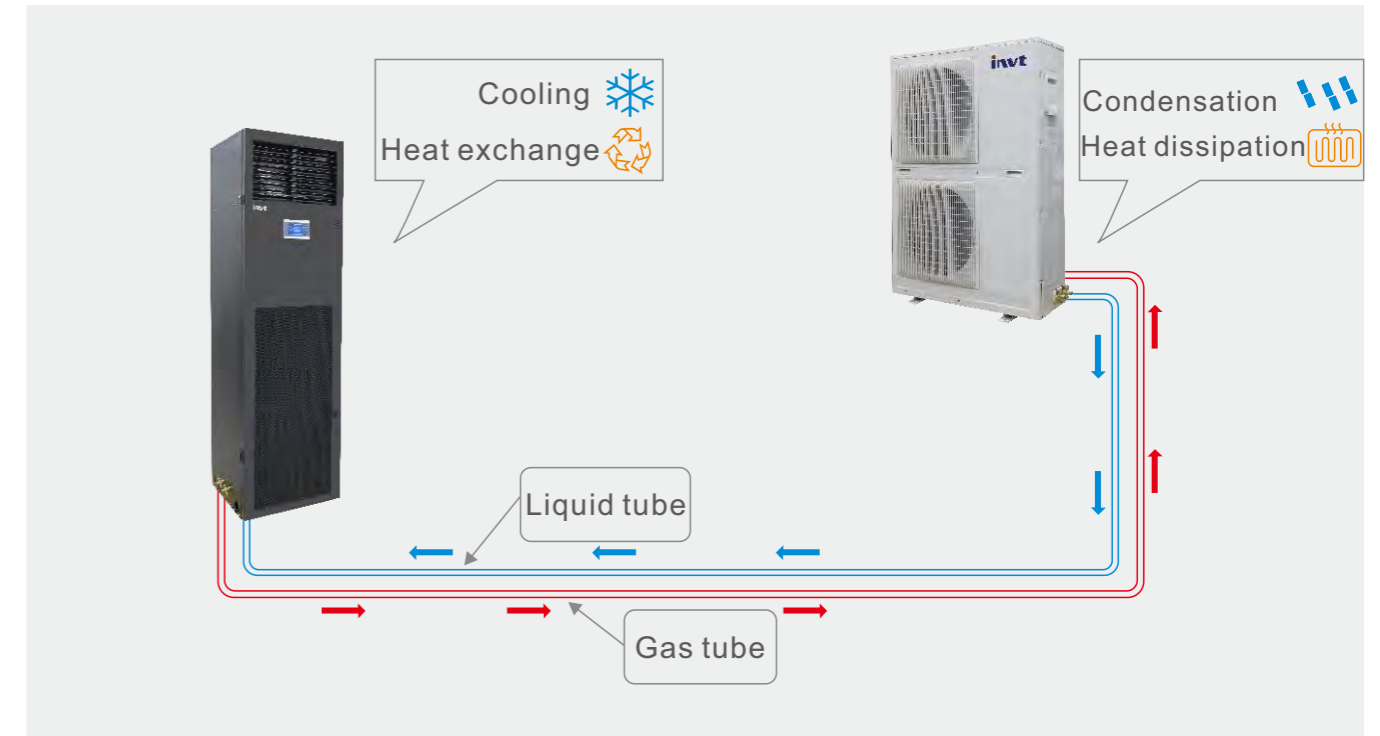
Technical parameters

	Unit	VCA005	VCA007	VCA012	VCA017	VCA020
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	m ³ /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		380V/50Hz		
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				
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

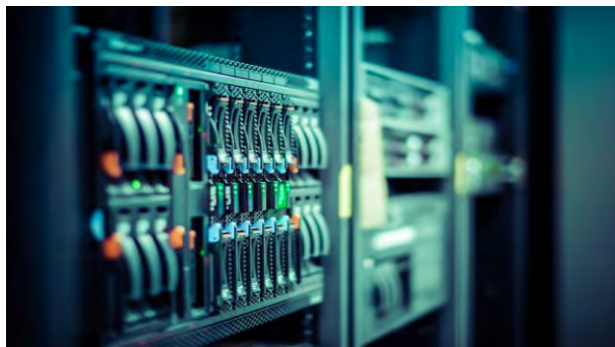
Operating principle



Outdoor unit



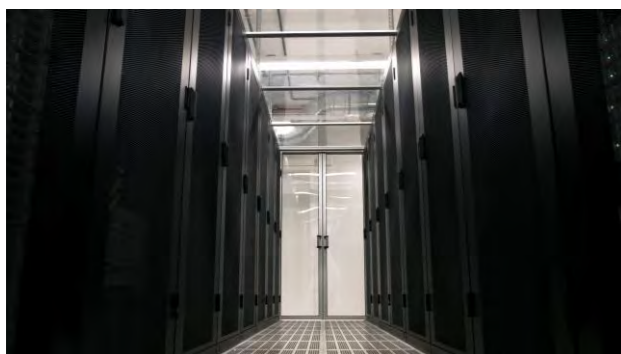
Application scenarios



▶ 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



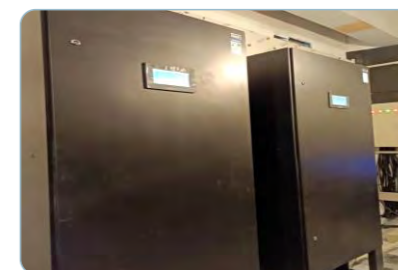
Product: **VCA035**
Series: Large room AC
Time: 2021
Location: Henan Province China



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