VCA Series Large Room Precision Air Conditioner

Product Introduction **v**

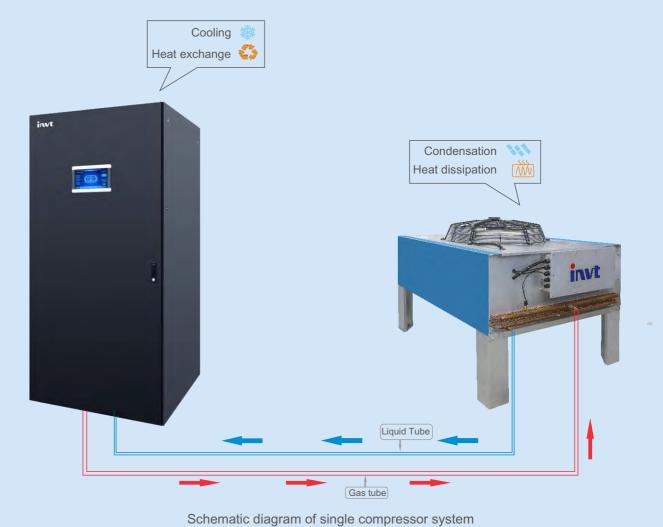
VCA series large room precision air conditioner is a special precision air conditioner for medium and large IDC rooms, communication rooms, equipment rooms and other places to provide internal environmental temperature and humidity and cleanliness control. It is used to ensure that cabinet equipment, server equipment, etc. have a reasonable temperature and humidity operating environment.



畲 Intelligent management

- Standard 10-inch color capacitive touch screen.
- · Standard RS485 interface and SNMP interface.
- Support temperature and humidity curve display and graphic status display.
- More than 2000 historical alarm information storage.
- Use CAN communication to do network group control.

Operation Principle **v**



Product Features The second secon



High efficiency and energy saving

- Adopt the design of large air volume, small enthalpy difference and high sensible heat ratio.
- V or A shape evaporator, high heat exchange efficiency.
- · High-precision electronic expansion valve, precise regulation of refrigerant flow.
- EC fan with real-time adjustment of airflow output according to the demand.
- · Inverter outdoor fan, adjust speed according to change of system pressure, operating efficiently.
- Use R410A green refrigerant, in line with international green refrigerant requirements.
- Hermetic scroll compressor for higher efficiency and more stable operation.



Safe and reliable

- · The main components adopt international famous brands Copeland compressors
 - Fans-tech or Ziehl-Abegg EC fan
 - LS circuit breaker
 - Schneider contactors Standard G4 filter
- 365 x 24 hours uninterrupted operation, long service life and low maintenance cost
- · Intelligent monitoring of air conditioner power supply voltage, frequency and three-phase unbalance
- · Double electric control box design, strong and weak electrical isolation to avoid signal disturbance.
- · The products have been tested and verified, high standard requirements, high quality delivery.







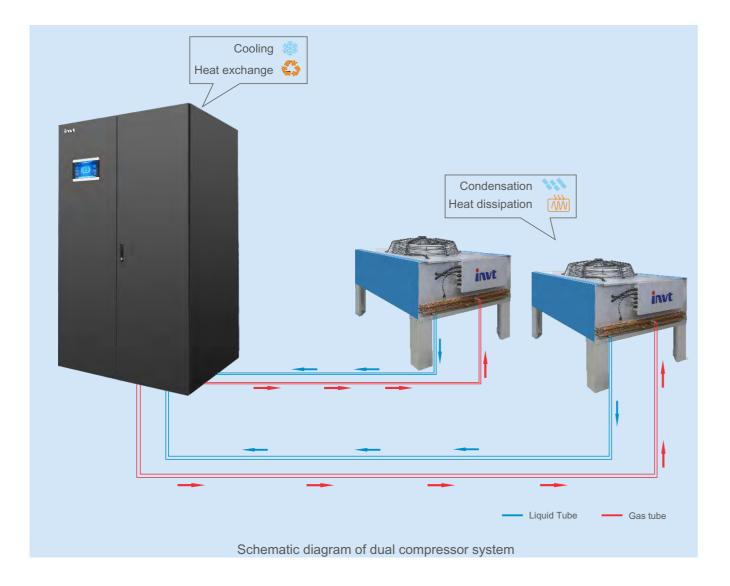






- · Optional water leakage detector, front-up flow kit.
- · Optional built-in low-temperature component.
- Support upflow supply, top front supply and downflow supply, which can be flexibly selected according to the actual application requirements.

Operation Principle **v**



Applicable Scene **v**



Large-scale server room



Traditional Server Room



Large-scale data centers



High heat density data center

Technical parameters **v**

| Model | VCA025 | VCA030 | VCA035 | VCA040 | VCA045 | | VCA050 (Dual Sys.) | VCA060 (Dual Sys.) | VCA070 (Dual Sys.) | VCA080 (Dual Sys.) | VCA090 (Dual Sys.) | VCA100 (Dual Sys.) |
|-------------------------------------|---|--------|--------|--------|--------|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Configuration | Constant Temp&Humidity | | | | | | | | | | | |
| Total cooling capacity (kW) | 27.5 | 31.2 | 38 | 40 | 45.6 | 50 | 51.2 | 62.4 | 76 | 80 | 91.2 | 100 |
| Sensible cooling capacity(kW) | 25.8 | 28.3 | 35.1 | 38 | 39.9 | 46 | 44.5 | 56.6 | 70.3 | 76 | 79.8 | 92 |
| Air volume (m³/h) | 8000 | 9000 | 10000 | 12000 | 12500 | 13500 | 13500 | 18000 | 20000 | 24000 | 25000 | 27000 |
| Heating capacity (kW) | 6 | 6 | 6 | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 |
| Humidification capacity | 6 | 6 | 6 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| AEER (W/W) | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Compressor type | Hermetic Scroll Refrigerant Compressors | | | | | | | | | | | |
| Fan type | EC Fan | | | | | | | | | | | |
| Refrigerant | R410A | | | | | | | | | | | |
| Power supply | 380V/50Hz 3N | | | | | | | | | | | |
| Full-load current(A) | 42 | 45 | 48 | 48 | 56 | 56 | 60 | 70 | 78 | 78 | 88 | 88 |
| Width (mm) | 900 | 900 | 900 | 900 | 1100 | 1100 | 1200 | 1800 | 1800 | 1800 | 2200 | 2200 |
| Depth (mm) | 995 | 995 | 995 | 995 | 995 | 995 | 995 | 995 | 995 | 995 | 995 | 995 |
| Height (mm) | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 | 1975 |
| Weight(kg) | 320 | 325 | 350 | 370 | 450 | 470 | 550 | 600 | 650 | 690 | 850 | 880 |

NOTE:

Test conditions: indoor return air temperature 24°C, relative humidity 50%, outdoor temperature 35°C.
 AEER test conditions: indoor return air temperature and humidity: 24°C/50%RH, outdoor temperature 35°C/25°C/15°C/5°C/-5°C respectively.

3. The upflow supply fan set supports two different air outlet methods: vertical top air supply (with on-site air duct) and top front supply.

4. Top front supply mode, can add front up flow kit on site (height increase) or standard height top front supply (factory prefabricated).

5. In order to save fan consumption, efficient cooling, downflow supply air conditioner standard products for the fan sink type, electrostatic floor height recommended \geq 450mm.

6. In case of special circumstances at the site, the downflow supply air conditioner can support the customization of the optional fan unsinking, or other ways of air supply and return, etc.

