VCS Series Rack Air Conditioner

The VCS series rack air conditioner is a special air conditioner for circulating cooling the internal air flow of the cabinet, it provides stable and reliable temperature and humidity regulation services for micro-data centers, and improves the stability and reliability of all kinds of equipment in micro-data









3.7kW Split Type

- 7.5kW Split Type
- 3.7kW Integrated Type
- 12.5kW Split Type

Product Feature **v**



Safe and reliability

- Mainstream brands are used for key components, making operation more stable and reliable.
- Using R410A green refrigerant, in line with international green refrigerant requirements.
- Standard with RS485 interface, support remote centralized control, call self-starting, timed power on and off.
- Advanced microprocessor controller with multi-level password protection to prevent misuse.



- Standard EC fan, lower noise, better airflow organization, accurate automatic control of airflow output.
- High-efficiency DC inverter compressor, real-time adaptation to changes in heat load in the cabinet, infinitely adjustable refrigeration capacity.
- Equipped with electronic expansion valve to quickly and precisely adjust the system refrigerant flow, saving 30% energy compared with traditional expansion valve.
- Adopt large area "V" shape evaporator design, make heat exchange faster and more efficient.



• Covering multiple cooling range segments, suitable for different power cabinet applications.

- Standard configuration of the upflow supply and horizontal airflow supply, optional front air supply form.
- · A wide variety of options.



- Rack-mounted pull-out design for easy handling and maintenance
- Support single cabinet and multi-cabinet cooling applications, support cabinet online expansion, business without interruption.
- Compact structure, effectively reducing the occupation of valuable U space in the cabinet.
- Working power supply supports 50/60Hz voltage frequency, more flexible configuration.
- Standard models are suitable for outdoor ambient temperature -20~45°C, and optional low temperature components are available to meet outdoor temperature as low as -40°C.



Operation Principle **v**



Applicable **v**



Modular data center



Container data center







High heat density data machine room



Small and medium-sized data center



Application Scenario 🔻



Scenario 1 Side view of single cabinet



Scenario 2 Side view of single cabinet

Specification **v**

Indoor unit

	Unit	VCS003	8/VCP005	VCS00	7/VCP010	VCS012/	VCP018	VCS003UH
Unit configuration	-	Constant Temp	Constant Temp&Hum	Constant Temp	Constant Temp&Hum	Constant Temp	Constant Temp&Hum	Constant Temp
Total cooling capacity	kW	3.7	3.7	7.5	7.5	12.5	12.5	3.7
Sensible cooling capacity	kW	3.7	3.7	7.5	7.5	12.5	12.5	3.7
Ton(USA)		1.05		2.13		3.55		3.55
Air volume	m³/h	700	700	1350	1350	2300	2300	700
Sensible heat ratio	%	100	100	100	100	100	100	100
Heating capacity	kW	1	1	2	2	3	3	1
Humidification capacity	kg/h	-	0.5	-	0.5	-	0.5	-
Compressor type	/	DC frequency conversion						
Voltage	V	220	220	220	220	220	220	220
Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Phase	Р	1	1	1	1	1	1	1
Full load current	А	13.5	13.6	28.6	28.8	29	29	13
Unit w eight	kg	26	27	35	36	47	49	58
Unit width	mm	440	440	440	440	440	440	440
Unit depth	mm	800	800	800	800	800	800	970
Unit height	mm	219(5U)	219(5U)	310(7U)	310(7U)	440(10U)	440(10U)	350(8U)

Outdoor unit

VCP***	Unit	5	10	18	-
Air volume	m3/h	2800	3500	5000	
Voltage	V	220	220	220	-
frequency	Hz	50/60	50/60	50/60	-
Phase	Р	1	1	1	-
Unit width	mm	886	882	995	-
Unit depth	mm	340	380	440	-
Unit height	mm	605	720	1256	-

Test condition: The indoor dry-bulb temperature is 37°, and the relative humidity is 24%. Working temperature: -20~45°C, less than -20°C need to add low temperature components.



Integrated Service System

Excellent operation management **v**

Process-based standardized management realizes high-efficiency, quality and cost management.



Implement a fully integrated service system, with customer demand as the starting point, customer satisfaction as the end point, and carry out product life cycle control.



Applications **v**

Education Industry

- Nanjing University of Posts and Telecommunications
- Xinchang College, Zhejiang Radio and Television University
- Xinchang County Chengdong Experimental School
- Xicheng Kindergarten, Jintan District, Changzhou City
- Hebei Dingxing Middle School
- Taiyuan University of Technology
- Harbin Songjiang Education Bureau
- Nanjing Agricultural College
- Fangshan Branch of Nanjing Foreign Language School
- Shaanxi University of Technology
- Taiyuan Normal University
- · Sinan Middle School of Guizhou Province
- Tianjin No. 100 Middle School

Medical Industry

- Heilongjiang Cancer Hospital
- Shantou Chenghai Maternity and Child Health Hospital
- Yangchun Gangqiao Hospital of Yangjiang City
- Xiangtan County Maternal and Child Health Hospital
- Haicheng Central Hospital
- Pingtang County People's Hospital
- The First People's Hospital of Wuhu
- Shanxi Cancer Hospital
- Shanwei City Health and Family Planning Bureau
- Zhangjiakou Maternity and Child Health Hospital
- Baishui County Hospital of Traditional Chinese Medicine
- People's Hospital of Zheng'an County, Zunyi City
- Beishan Hospital, Wuzhou Workers' Hospital











Government Agency

- Zhuhai City Health and Family Planning Bureau
- Shenzhen Yantian Commission for Discipline Inspection
- Kunming Highway Bureau
- Qinghai Water Resources Bureau
- Suzhou City Government Building 5
- International Migration Administration
- Yugan County People's Government
- Wuzhong District Political and Legal Committee
- Yuncheng Grain Bureau
- Changzhou Xinbei District Government
- Anyang Meteorological Bureau
- National Bureau of Statistics Zhuzhou Investigation Team
- · Education Bureau of Songbei District, Harbin City

Judicial and Enforcement Agency

- Dali City People's Procuratorate
- Hubei Provincial People's Procuratorate
- · Luliang City Intermediate People's Court
- Heping District People's Court of Shenyang City
- Beipiao Intermediate People's Court
- Rizhao Court of Qingdao Maritime Court
- Dongchuan Public Security Branch of Xining City
- Public Security Bureau of Binzhou City, Xi'an
- Hengkou Public Security Bureau of Ankang City
- Le'an County Forest Public Security Bureau
- Baimalong compulsory drug rehabilitation, Hunan Province
- Chaling County Prison, Zhuzhou City
- Bingtuan Prison Administration Command Center





Service Industry

- · Zhumadian Children's Palace, Henan Province
- Taicang Radio and Television Station, Jiangsu Province
- Suqian Radio and Television Station, Jiangsu Province
- Jilin TV Station
- · Huaibei Daily News
- Computer Room of Hengyang Hongguang Logistics Park
- Jiudongtian Tourist Scenic Area
- · Zhijindong Scenic Area, Bijie City
- Wulingyuan Scenic Area, Zhangjiajie City
- Wuhan Botanical Garden, Chinese Academy of Sciences
- Dongying Huatai Hotel
- Changsha Convention and Exhibition Center Hotel
- Lhasa Wanda Shopping Center, Tibet Autonomous Region

Other Applications

- Zhangjiagang Power Supply Bureau
- · Changsha Research Institute of Mining and Metallurgy
- Zhangjiagang Feixiang Chemical Computer Room
- Hebei Chengan Rural Credit Cooperative
- Kunlun Bank, Urumqi Yingbin Road Sub-branch
- Changde Economic Investment Data Center
- Hengyang Rural Commercial Bank
- Jilin Agricultural Credit Company
- Suzhou Wuzhong Economic Development Zone
- Lanzhou New District Flower Auction Center
- Huaqin Communications Wuxi R&D Center
- CRRC Changde Production Base
- Office Building of Hami Tobacco Company









