

# 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 Integrated Type (Fixed frequency)



3.7kW Integrated Type (Variable frequency)



3.7kW Split Type (Variable frequency)



7.5kW Split Type (Variable frequency)



12.5kW Split Type (Variable frequency)

## Applicable



Modular data center



High heat density data machine room

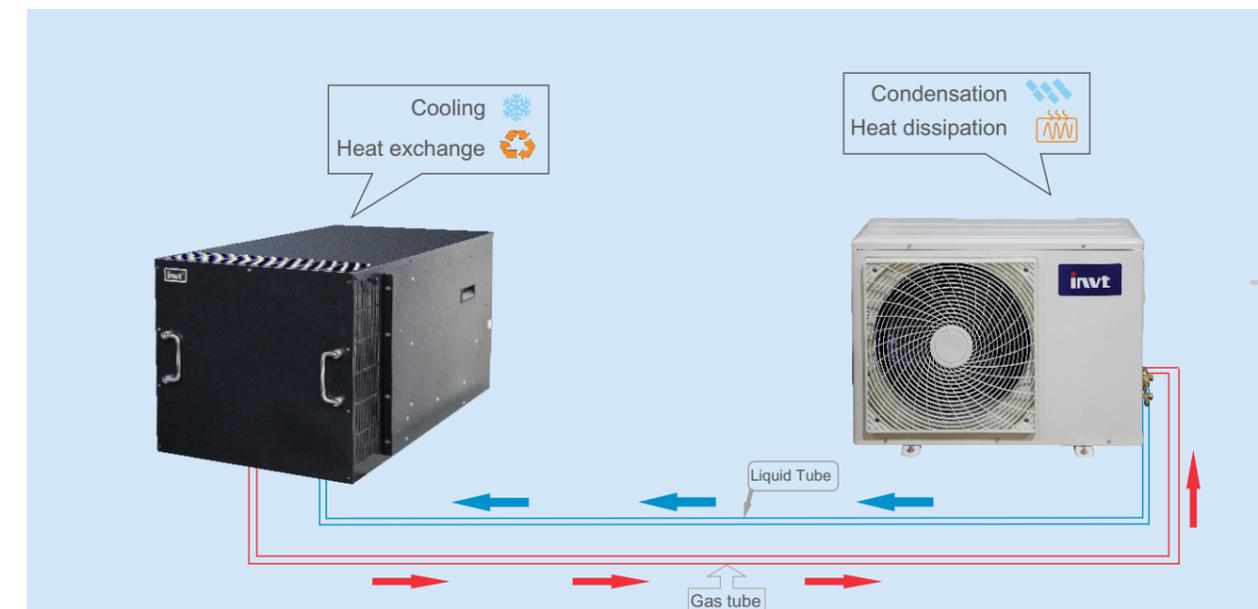


Container data center



Small and medium-sized data center

## Operation Principle



## Product Feature



### 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 misusing.



### High efficiency and energy saving

- 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 adjust refrigeration capacity.
- Equipped with electronic expansion valve to quickly and precisely adjust the system refrigerant flow, saving 30% energy comparing with traditional expansion valve.
- Adopt large area "V" shape evaporator design, make heat exchange faster and more efficient.



### Diversified configuration

- Cover 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.

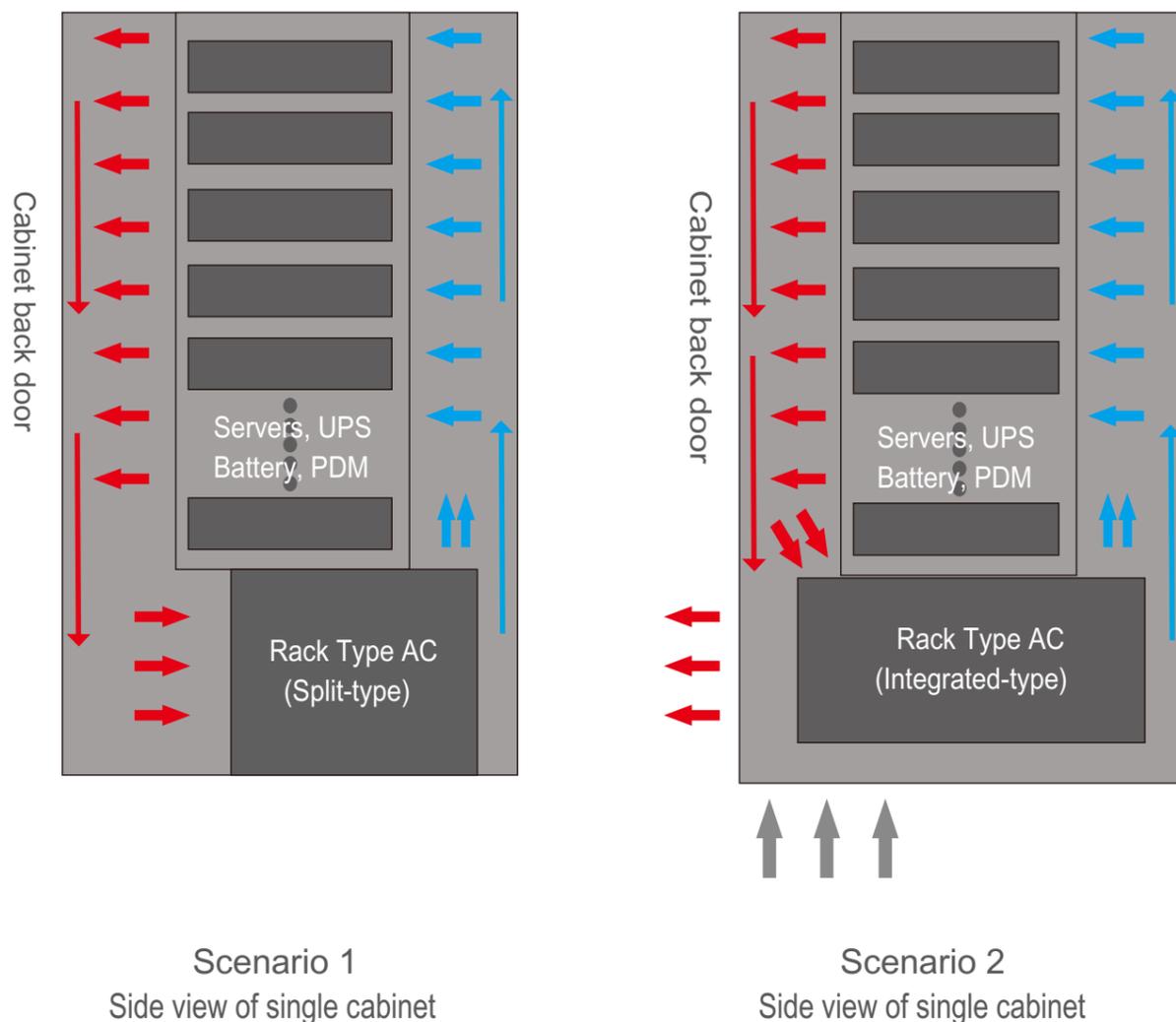


### High adaptability

- 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.



Application Scenario ▼



Specification ▼

Indoor unit

Unit configuration	Unit	VCS003/VCP005		VCS007/VCP010		VCS012/VCP018		VCS003UH	VCS003UH
		Constant Temp	Constant Temp&Hum	Constant Temp	Constant Temp&Hum	Constant Temp	Constant Temp&Hum	Constant Temp	Constant Temp
Total cooling capacity	kW	3.7	3.7	7.5	7.5	12.5	12.5	3.7	3.7
Sensible cooling capacity	kW	3.7	3.7	7.5	7.5	12.5	12.5	3.7	3.7
Ton(USA)		1.05		2.13		3.55		3.55	3.55
Air volume	m <sup>3</sup> /h	700	700	1350	1350	2300	2300	700	700
Sensible heat ratio	%	100	100	100	100	100	100	100	100
Heating capacity	kW	1	1	2	2	3	3	1	1
Humidification capacity	kg/h	-	0.5	-	0.5	-	0.5	-	-
Compressor type	/	DC Frequency Conversion						Variable Frequency	Fixed Frequency
Voltage	V	220	220	220	220	220	220	220	220
Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Phase	P	1	1	1	1	1	1	1	1
Full load current	A	12.68	12.68	23.16	23.16	30.69	30.69	12.65	11.35
Unit weight	kg	26	27	35	36	47	49	65	58
Unit width	mm	440	440	440	440	440	440	440	440
Unit depth	mm	800	800	800	800	800	800	980	980
Unit height	mm	219(5U)	219(5U)	310(7U)	310(7U)	440(10U)	440(10U)	400(9U)	352(8U)

Outdoor unit

VCP***	Unit	5	10	18	-
Air volume	m <sup>3</sup> /h	2800	3500	5000	-
Voltage	V	220	220	220	-
Frequency	Hz	50/60	50/60	50/60	-
Phase	P	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.