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# FAN WALL UNIT

Air Handlers for Data Center



Stable



Reliable



Energy-saving



# TICA



## TICA , *More than what you see.*

Founded in 1991, TICA specializes in clean environment and thermal energy utilization and integrates R&D, manufacturing, sales and service. TICA is a national high-tech enterprise, a single leading enterprise cultivated by the Ministry of Industry and Information Technology, a national brand cultivation enterprise of the Ministry of Industry and Information Technology, and a vice chairman member of China Refrigeration and Air-conditioning Industry Association. It has a national-recognized enterprise technology center, an enterprise academican workstation, and a post-doctoral research workstation.

TICA owns five production sites in Nanjing, Tianjin, Guangzhou, Chengdu and Kuala Lumpur, and a network of over 70 sales and service outlets around the world. TICA product lines include clean AHU, efficient water chiller, air-conditioning unit for data center, and ORC Low Temperature Waste Heat Power Generation System. TICA products and services cover energy production, conversion, utilization, and consumption, and are committed to lowering the whole life cycle cost of products.

Since 2003, SMARTD, a manufacturer of oil-free centrifugal (OFC) chillers under TICA, has provided high-efficiency air-conditioning units with a total cooling capacity of more than 500 MW for many data centers around the world.



# TICA

## **TICA, Visible Cleanness** **TICA, Visible Energy-Saving**

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Due to the limited cooling capacity, traditional precision air-conditioning systems cannot meet the needs of large or ultra-large data centers. Based on years of AHU design and production experience, TICA adopts customized AHUs for data centers to meet the needs of any space.

Fan wall unit provides a larger air supply area and maximizes the cooling density. It can not only use higher server racks, but also support higher-density IT load per unit area.

Fan wall unit is a highly customized product. We keep constant communication with customers to provide the optimal solution.



## We Understand Your Needs

- Patented TICA panel design, low cold bridge, low air leakage
- Modular design, saving space
- Multi-module operation, ensuring reliability and facilitating redundancy
- Higher cooling capacity, smaller footprint



### Unit

- More efficient EC fan technology
- Low-resistance heat exchanger, minimizing the energy consumption of the unit itself
- Multiple technologies used for lower pPUE



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## EC fan

- Backward efficient centrifugal fan
- Fan wall design, more even air supply
- Mutual backup of multiple fans, other fans not affected by the maintenance of one fan
- Integration of speed adjustment and multiple protection mechanisms, requiring no external inverter

## Multi Optional Parts



Intelligent

Reliable

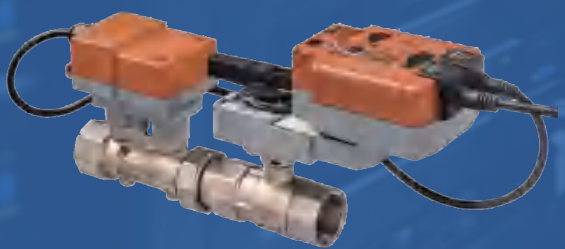
Energy-saving



### Intelligent controller

- International famous brand controller
- Multiple modes for efficient and reliable operation
- IO interface expansion capability monitoring for all main parts for optimization and energy-saving operation
- Accessible to all common BMS systems
- Multiple safety protection measures, ensuring secure running of data center

### PICV

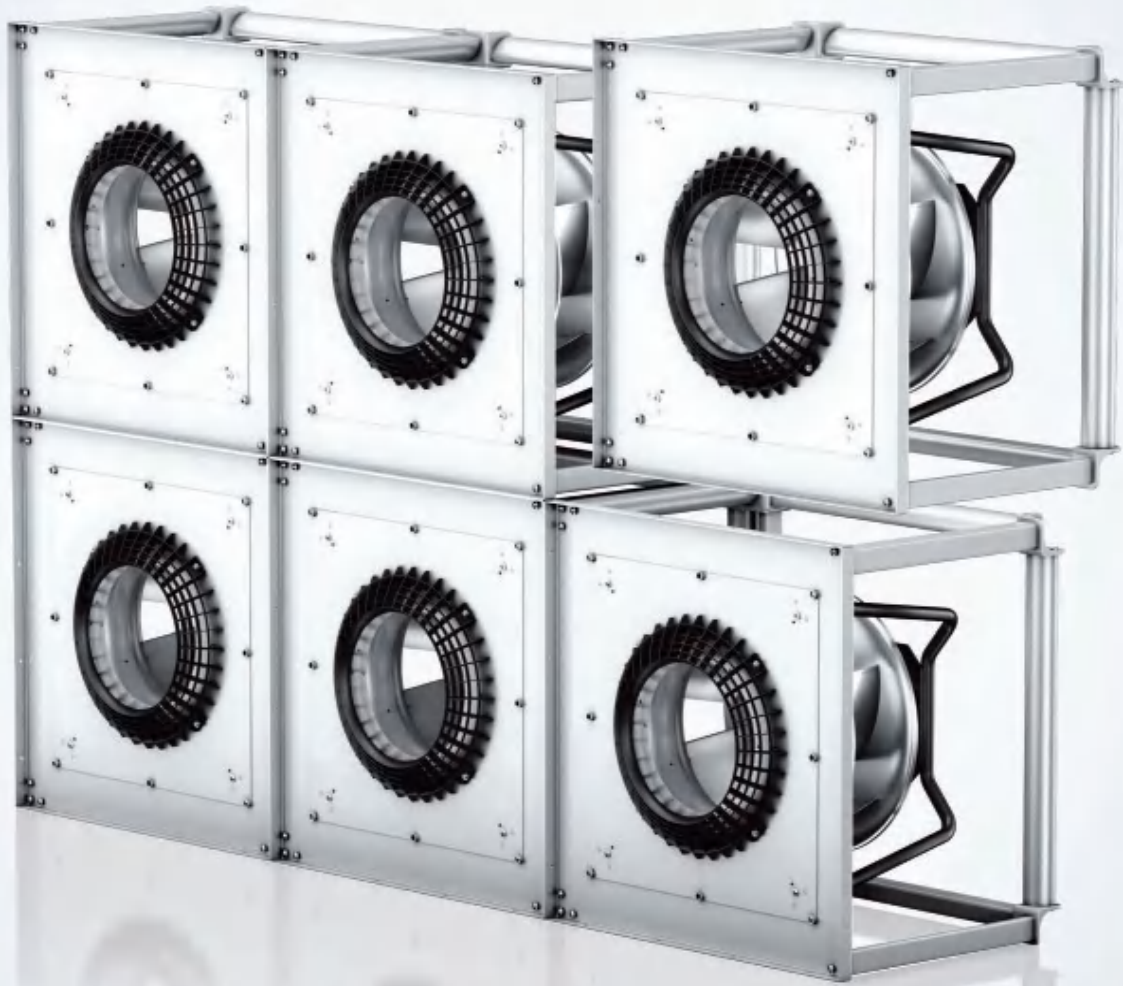


- Precise regulation of the cold water flow, meeting the design requirements of cooling capacity and temperature difference
- Eliminating all kinds of problems caused by low temperature difference
- Variable flow regulation, achieving maximum energy saving
- Dynamic load balancing under different operating conditions



### Other Optional Parts

- Different air discharge directions
- Motorized Dampers
- Dual power supply ATS
- Electrode or ultrasonic humidifier.
- Different grade filters (G3, G4, M5, F7) ...



Standard Size	Air Supply	Net Cooling Capacity	Indoor Return Air Dry Bulb Temperature	Supply Air Dry Bulb Temperature	Inlet/Outlet Water Temperature	Number of EC Fans	Water Inlet/Outlet Pipe Diameter	Unit Length	Depth	Height	Net Weight
	m <sup>3</sup> /h	kW	°C	°C	°C	Pcs	DN	mm	mm	mm	kg
200	50000	200	34	22	15/21	4	65	2400	1690	3000	2400
400	100000	400	34	22	15/21	8	65	4800	1690	3000	4800

## Standard Configurations

- 50mm panel with PU foam insulation, pre-coated galvanized steel inner and outer skin.
- Backward EC centrifugal fan, composite material impeller
- Copper-tube with aluminum fin heat exchanger
- 3D double-tilt-angle drain pan

\*\* For more customization parameters, please contact TICA.



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Note: Due to constant improvement and innovation of TICA's products, the product models, specifications and parameters contained in this document are subject to change without prior notice.