

FusionCol8000-E260&400(EHU)

Smart Indirect Evaporative Cooling Solution

INTRODUCTION

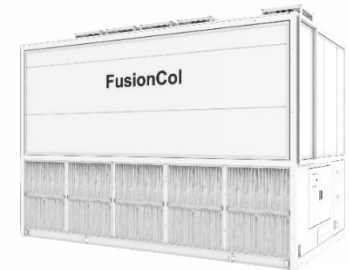
The indirect evaporative cooling technology is widely used in data center cooling. It uses the external cold source for indirect heat exchange and water spray evaporative cooling technology to effectively extend the service time of the natural cold source and significantly reduce the power consumption of the data center cooling system.

FusionCol8000-E uses all-in-one architecture with built-in DX cooling.

It implements convergence cooling, power and AI energy efficiency optimization, helping to reduce operating energy consumption and provide a low-carbon and energy-saving cooling solution.



FusionCol8000-E260



FusionCol8000-E400

APPLICATION SCENARIO

- ISP
- Carrier IDC
- Cloud and provincial/municipal data center

FEATURES

Simple

- All-in-One Architecture, factory prefabricated integration, simplifying installation, saving 50% TTM;
- Modular design: controller module and fan driver module can be maintained in one minute.

Green

- High efficiency polymer air-air heat exchanger and water spray evaporative cooling technology for optimized free cooling. CLF≤0.15@ Shenzhen. Softened water can be directly used for spraying, saving 30% water;
- High-efficiency EC fan and frequency conversion compressor, stepless refrigeration adjustment;
- Optional wet film humidifier: greatly reduces humidifier power consumption.

Smart

- Water and electricity balance, self-selecting water/power saving mode;
- Joint cooling and electricity commissioning, real-time matching IT load changes, accurately controlling air supply temperature and air volume;
- Automatic fault diagnosis, providing expert suggestions to locate the root cause of the fault;
- Optional "iCooling" AI comprehensive energy-saving optimization, prolonging free cooling time, achieving lowest PUE.

Reliable

- Operating harmonic THDi < 5%, power factor (PF) > 0.99 at full load;
- Wide Operating conditions: - 40°C ~ 45°C, anti-ice blocking, dustproof, anti-catkin;
- Indoor air is completely isolated from out door free cooling sources, preventing affecting indoor environment;
- Water tank: food-grade 304 stainless steel, integrated design, overall passivation, anti-leakage, anti-rust.

Remarks:

- Refrigeration model: Shenzhen, 10 MW data center, 50% load

TECHNICAL SPECIFICATIONS

Model		FusionCol8000-E260	FusionCol8000-E400
Total capacity/ Sensible capacity		260kW/260kW	400kW/400kW
SHR		1.0	1.0
Power supply		380-415V AC, 3PH, 50/60Hz	380-415V AC, 3PH, 50/60Hz
Maximum air flow		Indoor: 60,000m ³ /h Outdoor : 65,000m ³ /h	Indoor: 92,000m ³ /h Outdoor : 92,000m ³ /h
Auxiliary cooling capacity	Auxiliary cooling type	DX	DX
	Maximum Auxiliary cooling capacity	130kW	260kW
Supply air temperature/humidity		25°C/50%RH	25°C/50%RH
Return air temperature/humidity		38°C/23%RH	38°C/23%RH
Air filter	Indoor air filter	G4	G4
	Outdoor air filter	G3 (Standard accessorial)	G3 (Standard accessorial)
Fan type		EC	EC
external static pressure		150Pa	150Pa
Application environment	Operating temperature	-40°C ~ +45°C	-40°C ~ +45°C
	Operating humidity	5% RH ~ 95% RH	5% RH ~ 95% RH
Dimension (W×D×H)		2438mm×4700mm×3600mm	3500mm×6058mm×4150mm
Net weight/operation weight		5500kg/6500kg	8500kg/9500kg
Load-bearing requirement		≥ 600kg/m ²	≥ 620kg/m ²
Communication interface		FE, RS485	FE, RS485
Certification		CE/RoHS/REACH/WEEE	CE/RoHS/REACH/WEEE

Remarks:

- Cooling performance condition: Indoor return air DB 38°C, indoor supply air DB 25°C. Outdoor air DB 35°C, outdoor air WB≤27°C.
- It is recommended to select the cooling capacity based on the extreme climate in 20 years.

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