

# FusionCol8000-E260&400(EHU)

## Smart Indirect Evaporative Cooling Solution

### INTRODUCTION

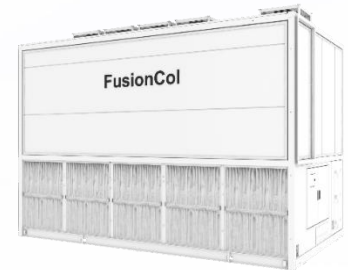
The indirect evaporative cooling technology is widely used in data center cooling. It uses the external cold source for indirect heat exchange and water spray evaporative cooling technology to effectively extend the service time of the natural cold source and significantly reduce the power consumption 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: 60,000m³/h<br>Outdoor : 65,000m³/h | Indoor: 92,000m³/h<br>Outdoor : 92,000m³/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 accessory)                    | G3 (Standard accessory)                    |
| 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/m²                                 | ≥ 620kg/m²                                 |
| 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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