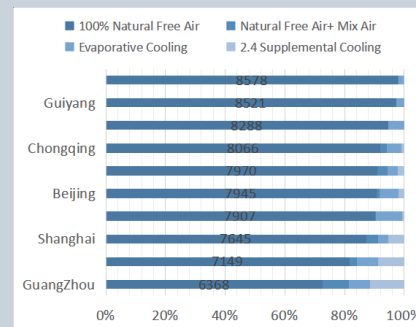


Specifications (single unit) Technology Comparison

Input	
Nominal Input Voltage	380 - 415V AC, 3PH, 50 Hz
Maximum Input Current	800A
Power Distribution	
IT Load	50 - 350 kw (10)
Power Distribution	Busway
PDU	Rack mount PDU, AP1000 series, 2pcs/rack Input: 415/240 V AC, 25A, 3PH Output: (36) C13, (6) C19
Cooling	
Type	Natural free air + evaporative + supplement DX cooling
Capacity	20 - 150kW
Relative Internal Operation Humidity	10% - 95%
Relative Internal Operation Humidity	15.6°C ~ 26.7°C /60.08°F ~ 80.06°F
Rack	
Size	(10) 52U racks 550 mm (W) x 1000 mm (D)
Management & Security System	
Management System	Power, cooling and environmental monitoring, optional module for IT equipment monitoring
Door	Main exit X 1, Emergency Exit,
Physical Characteristics	
Length	5.7 m (18'8")
Width	6.1 m (20'1")
Height	2.9 m (9'6")
Weight	19,606 kg (43,223LBS)
Operating Condition	
Temperature	-15°C ~ 45°C/60.08°F ~ 80.06°F
Seismic	Option
Elevation	0 - 1,000m /0-3280ft
Others	CCTV camera, integrated power distribution management and control system, fiber interface, door access

	Natural Free Air Cooling	Traditional Data Center
Usage	Preinstalled and factory tested before delivery, eliminates the risk of reduced quality for implementation	Implementation quality is at risk due to unforeseen onsite installation issues
Cooling Capacity	Natural Free air and evaporation solutions dramatically improves cooling efficiency and life cycle of the product	A multiple heat exchange environment causes an increase in energy demand, resulting in an increased opex.
PUE	Lower 1.1	>1.5
Manageability	PLC control enables the ability to manage remotely and in real-time	Data center operators can be slow to respond and potentially increase unexpected human errors and down time
Fast Deployment	Prefabricated modular units allow fast and easy deployment	Design, manufacture assembly and onsite deployment, can result in longer lead times and delayed implementation
Expandability	Modular units allows scalability to meet real-time operational demands	Original construction design limits the ability to scale and meet current business demands
Floor Space	Allows increased floor availability	Causes a decrease in available floor space for IT physical infrastructure
TCO	Reduction in overall costs and project timeline via a simplified cooling system, low energy consumption and building renovation	Capex for the initial construction phase can be unpredictable and make it difficult to maintain an accurate project budget

Natural Air Cooling Time in Major Cities



RakworX is a manufacturer of high-quality data center infrastructure products including IT racks, power distribution, cooling, air flow management, DCIM and multiple modular data center solutions. Our ability to scale as a company, allow us to deliver highly efficient and reliable products at an economical price. As a result, we are able to help our customers lower capex and opex costs resulting in a significant reduction of the TCO. Our ability to "engineer to order" customized solutions to meet our customers business needs, is unmatched in the data center industry. RakworX can be your single source partner for OEM/ODM solutions. Our value proposition is driven by one steadfast belief: RakworX is committed to provide our customers with quality products, superior service and cost efficient solution sets for the market place.



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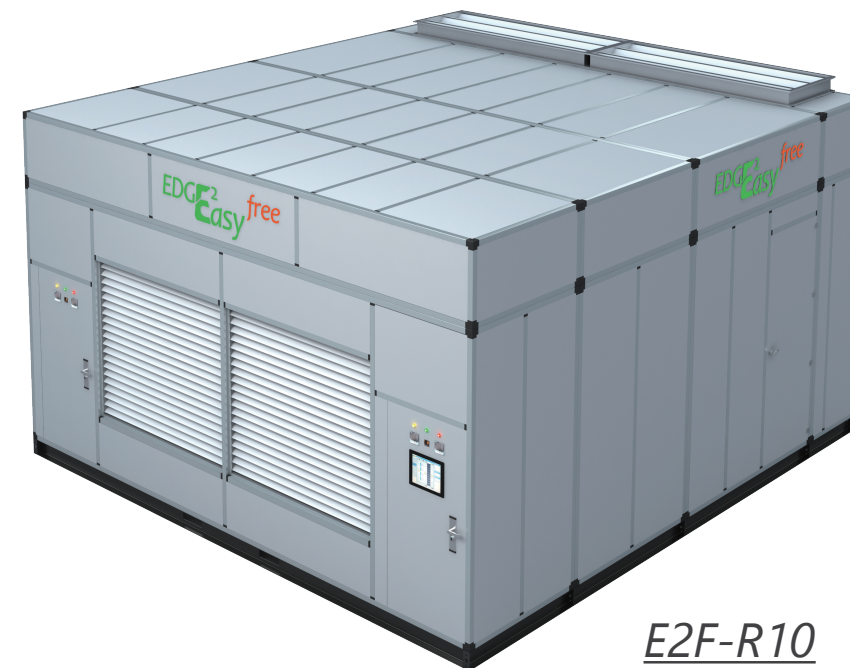
RakworX, Inc

Dedicated in Data Center Products

2019

Intelligent Direct Natural Free Air Cooling with Evaporate MDC

Next Generation Modular Data Center



E2F-R10

- ✓ Direct Natural Free Air+ Evaporate
- ✓ PUE Low to 1.1
- ✓ Fully Prefabricated
- ✓ Single Rack Power Up to 35kW
- ✓ Intelligent PLC Control



More

A single rack can support up to 35kw with pre-installed high-capacity power nodes, ready to meet the customers power demands.

Faster

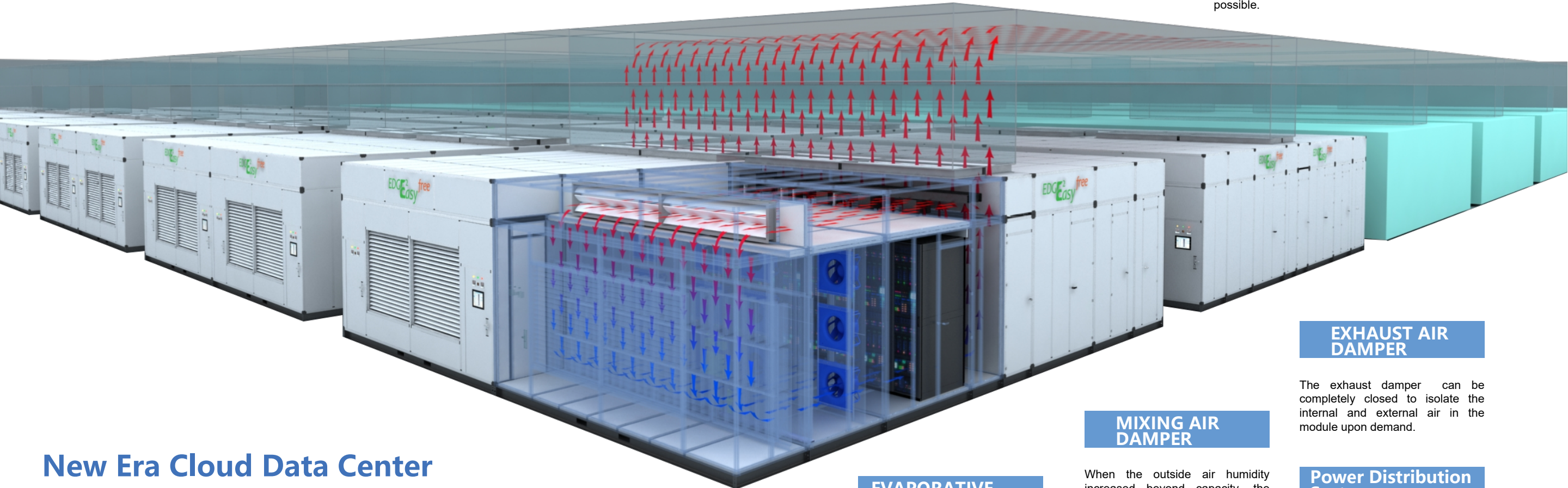
Utilizing a prefabricated modular design, all components are factory tested and integrated. From design to implementation, RakworX can enable the customers to capture ROI faster than the competition.

Better

The R10 cooling system is managed by our PLC, in combination with over 100 types of built in sensors and superior data center management system, RakworX R10 solutions can enable our customers to operate a better, faster and more reliable IT infrastructure.

Value

The RakworX intelligent design, combines natural free air with evaporative cooling, resulting in low PUE below 1.1. Our solutions will enable the customer to maintain a lower capital investment and lower operational cost. Our customers directly benefit from our factory tested and prefabricated modules, allowing them to capture their ROI as fast as possible.



New Era Cloud Data Center

Like all industries, the data center industry has entered the new "era of intelligence" evolving from the earlier "slash-and-burn" phase of data center technology. The explosion of data information causes data centers to become greater in capacity and density, and simultaneously increases the complexity and difficulty in managing the data center infrastructure. The demand has increased for the customers to gain the most value from their capex and copex costs. Data center management and high density computing are now demanding an increase in cost value and efficiency from their limited budget and aligned resources. It is the primary task for every technology executive to get the most value out of their available resources. Our modular data center solutions can efficiently utilize the accessible natural free air, and the evaporative cooling system, to maximize productivity from their IT infrastructure. With the RakworX intelligent and efficient design, we enable our customers to capture their ROI as fast as possible.

INLET AIR DAMPER

The highly reliable electric valve controlled by our proprietary software on the PLC, opens the inlet damper when the external air temperature, humidity and quality meet the inlet air standard, and directly draw the external natural air cooling resources to the IT equipment.

FILTER

RakworX prefabricated filters will filter out common dust and dirt circulating throughout the present IT environment. Our graded chemical filters can effectively filter out chemical pollutants that cause sulfide and nitrogen oxide deterioration of the existing IT hardware.

EVAPORATIVE COOLING SYSTEM

The module is equipped with up to 4 stage media humidifier. When the environmental air cannot meet the cooling demands of the high density of the IT equipment, the R10 will automatically open the appropriate level of media humidifier required for an efficient cooling system. With the ability to maintain and manage the humidity, excess heat is removed by phase transformation.

FAN

With an intelligent 12 fan design, the R10 can capably manage air quality and volume. With minimal energy consumption, the heat generated from a fully loaded (350kw) operation can efficiently be managed by the fan modules.

MIXING AIR DAMPER

When the outside air humidity increased beyond capacity, the mixing damper can be opened to intelligently mix the exhausted hot air with the external air resulting in reduced humidity.

RACK

Utilizes the 52U 19" server rack design to retain a consistent appearance on the floor space, or alternatively, a simple open frame rack can accurately manage the equipment at the modular level.

EXHAUST AIR DAMPER

The exhaust damper can be completely closed to isolate the internal and external air in the module upon demand.

Power Distribution System

The modular design supports 2N power distribution. Critical power is exported to the busway through the power distribution rack at the both ends, and then distributed to each rack. The back portion of the rack is equipped with two rack mounted PDUs (switch or metered options), enabling cost efficient management of the overall power consumption at the rack level. .

