Rakworx

RakworX, Inc.

Free Cooling Modular Data Center : E²F-1

RakworX's ᴱᴰᴳEasyᶠʳᵉᵉ modular data center solution features innovations that dramatically improve power density, energy efficiency, and serviceability over the product lifecycle. Our solution integrates racks, ups power, power distribution, fire suppression, and cooling into a single containerized module. We utilize evaporative cooling technologies that allow customers to take advantage of outside ambient air to cool the IT load during suitable outside weather conditions. The dramatically reduces the operation cost of the solution. All components are pre-installed and factory tested before delivery to a customer's site. The ᴱᴰᴳEasyᶠʳᵉᵉ cooling modular data center solution provides remote monitoring and management of all electrical and mechanical systems via a comprehensive web user interface.

Applications

◆ Edge Deployments

◆ Outside Plant

◆ Industrial Applications

◆ Military and Government

◆ Cell Towers

Features & Benefits

◆ Speed of Deployment

◆ Energy Saving Design

◆ Weatherproof

◆ Remote Monitoring

◆ Easy to Transport

◆ Placed at Remote Locations

◆ Customizable to Meet All Critical IT Demands

For more information

Please visit the website: www.rakworx.com
RakworX reserves the right to change the product specifications or other product information (including but not limited to product weight, appearance, size or other physical factors).
The information mentioned in this article is subject to change without prior notice, as a result of product upgrades or other causes. In this paper, the product images are subject to the product in kind.

Specifications

Physical Measurement	6.56ft（W）x 7.54ft（H）x 5.78ft（D）
Rack Size	1pc 42U x 600mm (W)x 1070mm (D)
Weight	3,100lbs
Max. IT Loading	15 kW
Max. Cooling Capacity	15 kW

Power Distribution

Nominal Input Voltage	480 V AC, 3PH, 50/60 Hz
Maximum Input Current	100 A
Power Distribution Panel	Busbar
PDU	Rack mount, AP1000 series, 2pcs per rack Input 208V, output (20) C13, (4) C19
UPS	20kVA per UPS; on-line dual transform mode (optional)
Battery	VRLA（optional）
Backup Time	15 min @ full load (adjustable)

Cooling

Type	Natural fresh air + Evaporation + Supplemental cooling + Rack mounted DX cooling (optional)
Capacity	15 kW
Internal Operation Humidity	10% - 95%
Internal Operation Temperature	15.6°C ~ 26.7°C (60.08°F~ 80.06°F)

Monitoring, Control, and Security Systems

DSCV Management System	Power, cooling, security, environment monitoring & control, PUE display, Optional module for IT monitoring
Exit	Main exit X1, maintenance exit X2
Sensor	T/H & smoke X 3, tactile electric lock X 3, leak sensor X 1
HMI	10" tactile screen
Serial Server	RS485, TCP/IP
Monitoring Points (partial)	Input voltage, current, frequency, active power, harmonic measurement, on/off, cooling temperature, cooling operation status, temperature, humidity, smoke, leak, door access etc.
Alarm Point (partial)	Power failure alarm, over-voltage alarm, currency over loading alarm, on/off switching alarm, over heat alarm, leak alarm, smoke alarm.
Communication	MODBUS/TCP（Standard）, SNMP, HTTP etc

Operation Condition

Operation Condition	Elevation：0-3, 280ft (max. 13, 120ft derate) Temperature:-15°C ~45°C (5°F~ 113°F) Humidity:0-95% RH, non-condensing
Seismic Grade	Optional

Option Model

Power Distribution	Smart busbar, power distribution panel
UPS	20KVA on-line transform mode
PDU	Swtich / meter, output (20) C13, (4) C19
Supplemental Cooling	DX
L Bracket	Installed to 19" rack, loading 110lbs
Blanking Panel	1/2/4U toolless mounting
Auxiliary Display	4" tactile screen
Door Lock	Tactile electrical lock
Door Access	Finger print, face recognition system
Sensor	T/H, smoke sensor, RS485
Leak Sensor	RS485
Lighting	24V LED light, 300mm（with on/off, can be serial connected)

Compliant

EMC	EN 55022 Class A, EN 55024, EN 61000-3-2, EN 61000-3-3
Qualification	UL, TUV, EMC, CE, EN/IEC 60950-1
Environment	ROHS, WEEE