



# NATURAL AIR COOLING 5kW MODULAR DATA CENTER FOR ENTERPRISE SOLUTIONS

## MODEL: PRM-R1A-5 5kW 32U RACK MDC

PRIME's Modular Data Centers are a prefabricated and efficient solution for 5G Macro Sites and Enterprise applications. The Natural Air Cooling system cuts energy costs dramatically - using 75% less water and 50% less energy than traditional cooling solutions. The prefabricated structure integrates multiple physical infrastructure subsystems; all components are fully inspected and tested prior to the unit being shipped out to the customer. PRIME's MDCs are easy to operate and maintain.



### FEATURES & BENEFITS

- Save Time & Money
- Rapid Deployment
- Stable, Reliable & Scalable
- Self-Monitoring Real-Time PLC Control
- Self-Regulating Climate Control

### APPLICATIONS

- Enterprise Solutions
- Small Businesses
- Manufacturing
- Retail Stores
- Hotels
- Streaming/Gaming
- Smart Homes
- Emergency Services



Cooling Fans



Intelligent PDUs



Air & Chemical Filters



PLC Panel



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### COOLING

**Cooling Type:** Natural Air & Evaporation  
**Cooling Option:** DX (direct expansion)  
**Cooling Capacity:** 5kW  
**Internal Operating Humidity:** 10% - 95%  
**Internal Operating Temperature:**  
60.08°F ~ 80.06°F/15.6°C ~ 26.7°C

### POWER DISTRIBUTION

**Maximum IT Load:** 5kW  
**Nominal Input Voltage:** 200-240VAC, Single Phase, 60Hz  
**Maximum Input Current:** 40A  
**Power Distribution:** Circuit breaker panel  
**PDU:** Rack Mount, AC AP1000 Series, 2 per rack  
Input: 200-240VAC. Output: 200-240V  
Outlets: C13 x 14, C19 x 2  
**PDU Options:** On/Off switches & output meters

### SPECIFICATIONS

**Estimated Weight:** 985lbs/447kg  
**Physical Measurements:**  
**Rack Measurements:** 1pc 30U  
**MDC Measurements:**  
29.52in (W) x 58.27in (D) x 76.61in (H)  
750mm (W) x 1480mm (D) x 1946mm (H)

### OPERATING CONDITIONS

**Elevation:** 0 - 3,280ft/1,000m max. 9,842ft/3,000m  
Altitude over 1000 meters -  
power switch capacity will reduce 1% per 100 meters  
**Temperature:** 5°F ~ 113°F/-20°C ~ 45°C  
**Humidity:** 5% - 100% RH, non-condensing  
**Application:** Indoor  
**Seismic Grade:** Optional - Depends on installation  
site and environment

### PLC MONITORING & CONTROL

**Data Center Management System:**  
Power, Cooling, Security, Environmental Monitoring  
& Control, PUE Display  
**Serial Device Server:** RS485 Connection,  
TCP/IP Communication.  
**Monitoring Points (partial):** Input voltage, Current,  
Frequency, Active Power, Power, Cooling Temperature,  
Cooling Operation Status, Filters, Temperature, Humidity,  
Smoke, Leaks, Door Access  
**Warning Alert Notification (partial):** Visual on PLC, and  
65dB Alarms for Power Failure, Over-Voltage, Current  
Overload, On/Off Switching, Overheating, Water Leaks,  
Smoke, Filters, Doors  
**Telecommunication:** MQTT (Standard),  
**Telecommunication Options:** SNMP/ HTTP

### ACCESS

**Door Lock:** Deadbolt & key  
**Door Lock Options:** Electronic lock, Bluetooth,  
key card, APP

### ADDITIONAL FEATURES

**L Style Bracket:** Installed to 19in/482.6mm rack,  
load 110lbs/50kg  
**Lighting:** 24V LED light, 11in/300mm  
(with on/off switch, can be connected in series)

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