



# NATURAL AIR COOLING MODULAR DATA CENTER FOR 5G MACRO SITES & ENTERPRISE SOLUTIONS

## MODEL: PRM-R1L-15 1-RACK MACRO SITE 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.

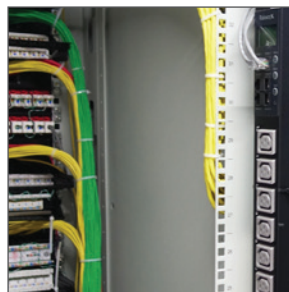


### FEATURES & BENEFITS

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



PLC Panel



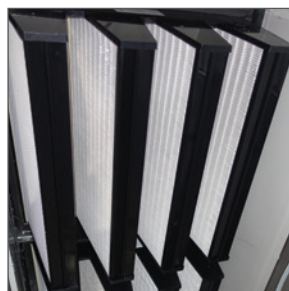
Intelligent PDUs

### APPLICATIONS

- 5G Macro Sites
- Small Data Centers
- Emergency Services
- Enterprise Solutions
- Schools / Hospitals
- Financial Institutions
- Sports & Events
- Hotels
- Security & Surveillance
- Media Broadcasting
- Streaming/Gaming
- A.I.



G4 Air Filters



F8 Chemical Filters



Evaporative Panel



Cooling Fans



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### COOLING

**Cooling Type:** Natural Air & Evaporation  
**Cooling Option:** DX (direct expansion)  
**Cooling Capacity:** 15kW  
**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:** 15kW  
**Nominal Input Voltage:** 380-415 VAC, 3PH, 50/60Hz  
**Maximum Input Current:** 40A  
**Power Distribution:** Circuit breaker panel  
**Power Distribution option:** Smart busbar,  
power distribution panel  
**PDU:** Rackmount, 25A, AP1000 series, (2) per rack  
Input 380-415V, output (18) C13+ (6)C19  
**PDU Options:** On/Off switches & output meters

### SPECIFICATIONS

**Estimated Weight:** 4299lbs/1950kg  
**Physical Measurements:**

**Rack Measurements:** 1pc 42U  
23.62in (W) x 23.62in (D) x 76.97in (H)  
600mm (W) x 600mm (D) x 1955mm (H)  
**MDC Measurements:**  
78.74in (W) x 52.56in (D) x 85.04 (H)  
2000mm (W) x 1335mm (D) x 2160mm (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 (Outdoor optional)  
**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 DC Server:** RS485 Connection,  
RTU Communication

**Monitoring Points (partial):** Input voltage, Current,  
Frequency, Active Power, Power, Cooling Temperature,  
Cooling Operation Status, Filters Temperature, Humidity,  
Smoke, Leak, Door Access, etc.

**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

**Telecommunication:** MQTT (Standard),

**Telecommunication Options:** SNMP/ HTTP

### ACCESS

**Hot & Cold Aisle Door Lock:** Electronic Key  
**Maintenance 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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