



NATURAL AIR COOLING 20kW MODULAR DATA CENTER FOR ENTERPRISE SOLUTIONS

MODEL: PRM-R1A-20 20kW 40U 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 Capacity: 20kW
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: 20kW
Nominal Input Voltage: 415VAC, 3 Phase, 50/60Hz
Maximum Input Current: 50A
Power Distribution: Circuit breaker panel
PDU: Rack Mount, 40A, AP1000 Series, 2 per rack
Input: 380-400VAC. Output: 380-400VAC
Outlets: C13 x 18, C19 x 6
PDU Options: On/Off switches & output meters

SPECIFICATIONS

Estimated Weight: 1100lbs/500kg
Physical Measurements:
Rack Measurements: 1pc 40U
MDC Measurements (Physical):
47.24in (W) x 56.1in (D) x 77.95in (H)
1200mm (W) x 1425mm (D) x 1980mm (H)
MDC Measurements (Interior):
17.72in (W) x 29.53in (D) x 70.0in (H)
450mm (W) x 750mm (D) x 1778mm (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

MODULE ACCESSORIES

Water hose: Corrugated stainless steel tubing, 5m

PLC MONITORING & CONTROL

Data Center Management System:

Power, Cooling, Security, Environmental Monitoring
& Control, PUE Display

Serial Device Server: RS485 Connection, RTU
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: Fingerprint, face recognition

ADDITIONAL FEATURES

L Style Bracket: Installed to 19in/482.6mm rack,
load 110lbs/50kg

Lighting: 2pcs 24V LED light, 11in/300mm
(with on/off switch, can be connected in series)

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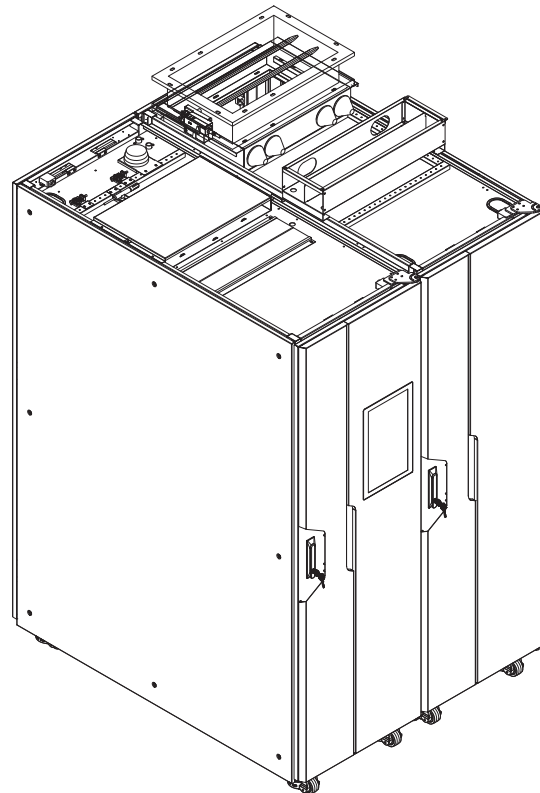
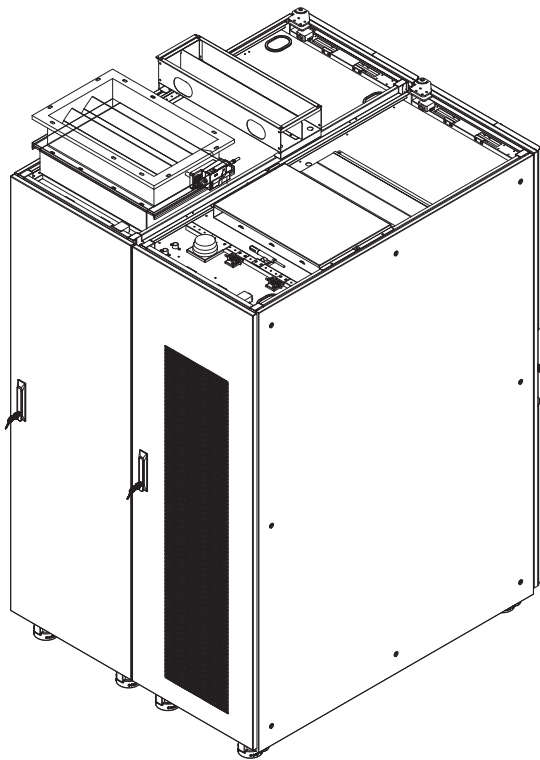
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NOTE:

1. Installation shall comply with all applicable national, state and local electrical regulations
2. Refer to the product manual for additional details prior to installation and site preparation work
3. Net weight of unit is 1100 lbs/500 kg
4. Cable entry at top and bottom of the unit
5. Front and rear service access required
6. Air flow and service requirements, as well as minimum clearance to fire suppression systems should be considered when selecting a location for the unit

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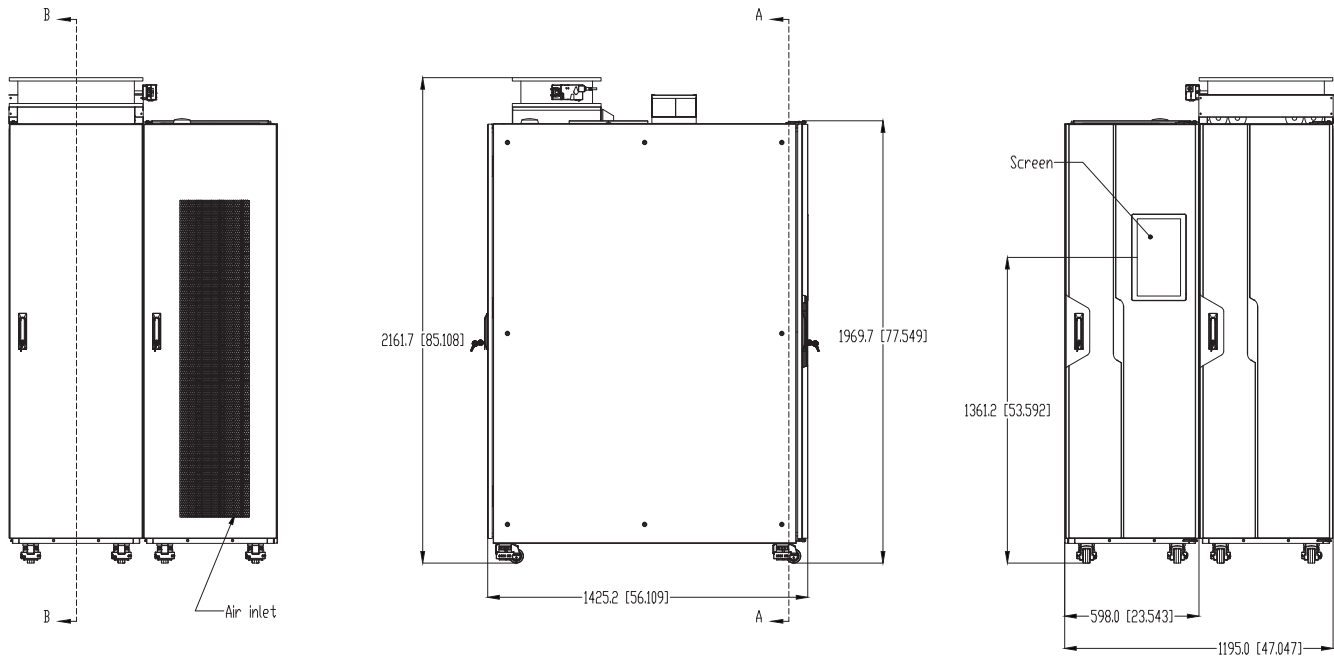
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NOTES:

1. Input Voltage 415V, 60Hz;
2. Input power 20kW;
3. Indoor.

NOTE:

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2. Refer to the product manual for additional details prior to installation and site preparation work
3. Net weight of unit is 665lbs/300kg (Main), 443lbs/200kg (Extension)
4. Cable entry at top and bottom of the unit
5. Front and rear service access required
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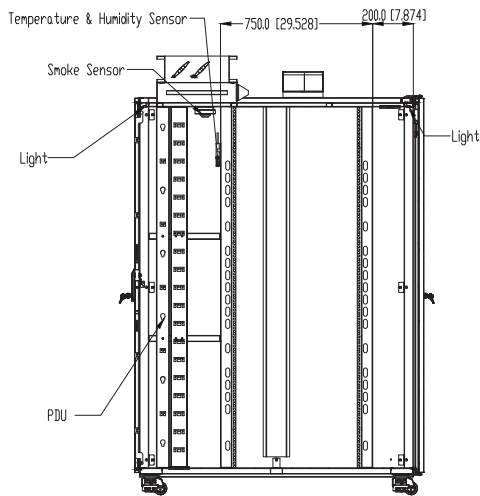
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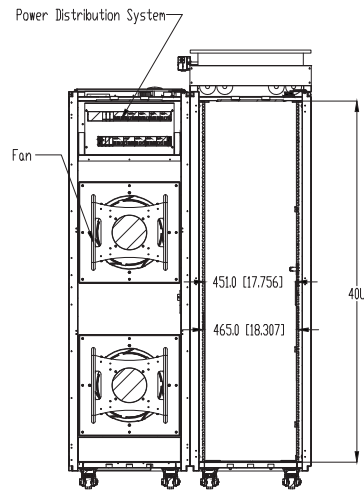
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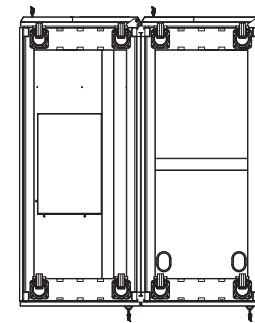
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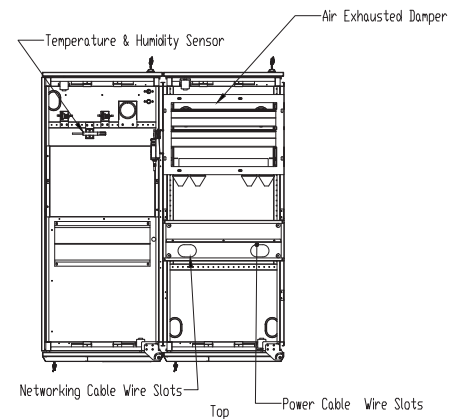
SECTION B-B



SECTION A-A



Bottom



Top

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