

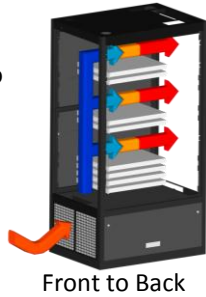
UPTIME RACKS™ vs. Liebert®

Precision IT Cooling Made Secure & Simple.™

Airflow

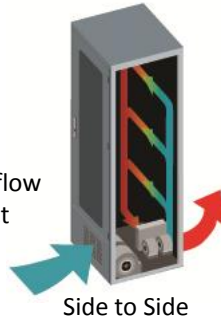
UPTIME RACKS

- Supplies cold air in front of servers
- High airflow volume
- Servers intake air in front and exhaust out the back
- Actively cools internal circuits
- Follows ASHRAE Standards
- Commercial grade blowers
- Duct exhaust air up to 15'
- No external inline blower required



Competition

- Supplies cold air around the sides of the servers
- Low airflow volume
- A/C airflow side to side
- Easy to short cycle a/c airflow
- Inline blower needed to duct warm exhaust air
- Complicates installation



Controls / Operating Range

UPTIME RACKS

- Electronic Programmable Thermostat
- Operates down to 65 °F
- Connects to Building Management System
 - Fire Alarm Input – Safety Shut-Off Switch
 - Alarm Output Signals



Competition

- Mechanical Thermostat
- Factory Setting Thermostat: 75 °F
- Difficult to change set point
- Operates down to 75 °F
- Lower temperatures may result in evaporator icing and/or condensation on the doors and panels

Cooling Capacity ECC13 vs. MCR

UPTIME RACKS

- 13,000 Btu/hr (3.8 kW)
- Supports dense heat loads
 - Blade Servers
 - Fully populated cabinet
- Self-contained direct expansion air cooled a/c
 - MovinCOOL brand
 - R-410a



Competition

- 6,897 Btu/hr (2.0 kW)
- Supports smaller IT loads
 - Unused rack space may be necessary to match a/c cooling capacity
- Self-contained direct expansion air cooled a/c
 - R-407c

Backup Cooling

UPTIME RACKS

- Air conditioner powered by UPS during power outages
- Back-up battery time for a/c matches back-up battery time for mission critical IT equipment
- Automatic restart function
- Perforated front and rear doors to allow outside ambient air to cool IT equipment
- No hot air recirculation within cabinet

Competition

- Rear door fans powered by UPS during power outages
- Difficult to get outside ambient air to front of cabinet
- Airflow short cycles in rear of cabinet
- Low airflow volume



Condensate Removal

UPTIME RACKS

- Condensate Pump
 - 20' High Lift
- Controls proper humidity levels
- Contributes to good Indoor Air Quality (IAQ) for the building
- Ensures 7/24/365 operation
- Safety Switch for pump failure



Competition

- Re-evaporates condensate into warm exhaust air into ceiling plenum
- Contributes to poor IAQ
 - Mold growth
- Open cabinet door can overload re-evaporate system in 5 – 20 mins.
 - Water leakage

