

VERHI

AI Data Center Cooling Decision Checklist

Follow the heat path from rack density to final heat rejection

This checklist organizes the inputs needed to decide whether a room-level, row-level or other cooling architecture requires engineering review.

Planning and review aid only. Final configuration requires VERHI engineering review.

1. Density profile

Average hall density can hide the racks that define the thermal and power problem. Record average and peak conditions separately.

Input	Project value or condition	Verified by
Average kW per rack		
Peak kW per rack		
Concurrent peak condition		
Peak duration		
Future rack growth		
Total IT load		

2. Air and heat path

Input	Project value or condition	Verified by
Rack inlet target		
Rack outlet condition		
Containment arrangement		
Cold-air delivery path		
Hot-air return path		
Room geometry constraint		
Final heat rejection		

3. Cooling architecture

VERHI publishes room-level and in-row cooling product families. Liquid-cooling support must be confirmed against the actual architecture and project scope.

Input	Project value or condition	Verified by
Room-level cooling scope		
In-row cooling scope		
Liquid-cooling boundary		
Redundancy requirement		
Maintenance access		
Controls integration		

4. Facility interfaces

Input	Project value or condition	Verified by
Available electrical capacity		
Water or refrigerant availability		
Outdoor design conditions		
Floor loading		
Service space		
Monitoring and alarm boundary		

5. Review checks

[] Peak rack density is visible and not hidden by an average.

- [] Heat is traced through every cooling step.
- [] Room, row and liquid boundaries are stated separately.
- [] Nominal capacity is replaced by performance at project conditions.
- [] Redundancy is checked at the complete cooling path.
- [] Any architecture outside the published scope is sent to engineering review.