AISLE CONTAINMENT

OptiCool's™ AHX-Integrated Aisle Containment solution combines the efficiency of active cooling with the scalability and familiarity of traditional aisle containment systems. By integrating our intelligent Active Heat Exchange (AHX) units directly into the containment structure, we provide a modular, high-performance solution designed to meet the demands of today's densifying data centers.

Whether you're retrofitting an existing environment or designing a new build, this solution delivers rack-level cooling without the complexity of full-room HVAC upgrades. The AHX units dynamically adjust based on real-time heat loads, extracting heat directly at the source and discharging room-neutral air, preserving aisle separation while eliminating thermal hotspots.

Designed for deployment with OptiCool's™ overhead manifold and Refrigeration Distribution Network (RDN), this system enables fast, efficient installation and scaling across a variety of environments.

Specifications

RACK HEIGH:	42U,45U,48U OR CUSTOM SIZES
AISLE WIDTH:	3-6 ft FOR ACCESSIBILITY
RACK DEPTH:	STANDARD 42-48 in.
HEAT DISSIPATION CAPACITY:	5-40 kW PER RACK
AHX OPTIONS:	10 kW, 20kW, 40 kW
AHX DIMENSIONS:	10 kW: 22.7 in. x 13.7 in. x 6.13 in. 20 kW: 22.7 in. x 19.5 in. x 8.25 in. 40 kW: 22.7 in. x 19.5 in. x 9.00 in.
REFRIGERANT COOLING:	R-513A
ENERGY EFFICIENCY:	1.02 PUE
POWER INPUT:	SINGLE or DUAL
MAX POWER CONSUMPTION PER AHX:	131.5 W for 10 kW AHX 263 W for 20 kW AHX 1.278 kW for 40 kW AHX
INLET SENSORS:	REDUNDANT A/B TEMP SENSORS

Features

- Assembled in the USA.

- Industry standard hardware and software for easy BMS integration.

- Compatible with existing infrastructure Greenfield/Brownfield.

- Eliminates mixing of hot and cold air, ensuring uniform, predictable temperature to all IT equipment.

- Variable-speed fans adjust to actual workload demand.

- Cooling Cost Reduction: Can lower cooling energy consumption.

- Hot-swappable AHX units adapt to increasing rack loads.

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