



ADVANCED COOLING TECHNOLOGIES

VAPHTEK HYBRID CRAC UNIT

EDGE COOLING WITHOUT COMPROMISE

Lower PUE Without Risking Uptime

Stop choosing between low PUE and full protection. Vaphtek automatically shifts between ultra-high efficiency and maximum cooling capacity as environmental conditions change.

Intelligent cooling that manages itself. Vaphtek runs in two adaptive modes engineered for the unpredictable loads and environments of edge and mobile data centers. The system seamlessly transitions between active and free cooling with no operator action, ensuring non-stop protection and efficiency.



TALK TO AN EXPERT

Scan the QR code or visit 1-act.com/contact



Lower PUE when averaged throughout the year via Eco Mode



Full protection on demand with Vapor Compression Mode



Rugged and reliable across **changing environments**



Up to **70% reduction** in power draw in Eco Mode



Automatic switchover—no operator action required



Edge- and mobile-ready for volatile loads and diverse climates

OPERATION MODES



ECO MODE
(PUMPED TWO-PHASE ECONOMIZATION)



VAPOR COMPRESSION MODE

↔ **Activation Trigger**

Favorable ambient conditions allow free cooling

Extreme ambient conditions, high IT load, or low supply temperature thresholds

⚙️ **Core Function**

Automatically circulates a working fluid to reject heat without engaging the compressor

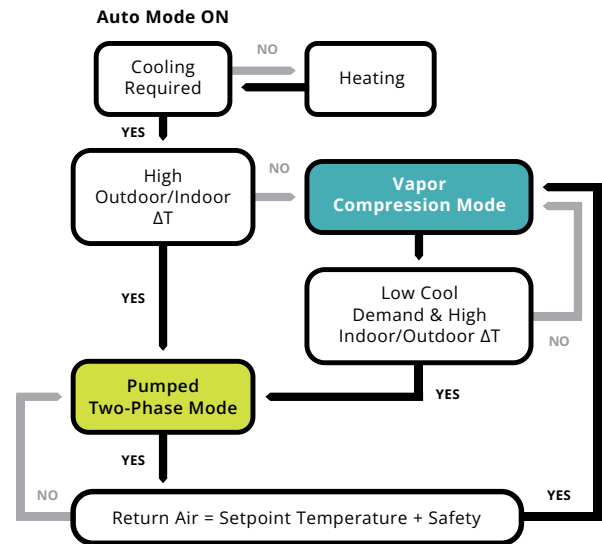
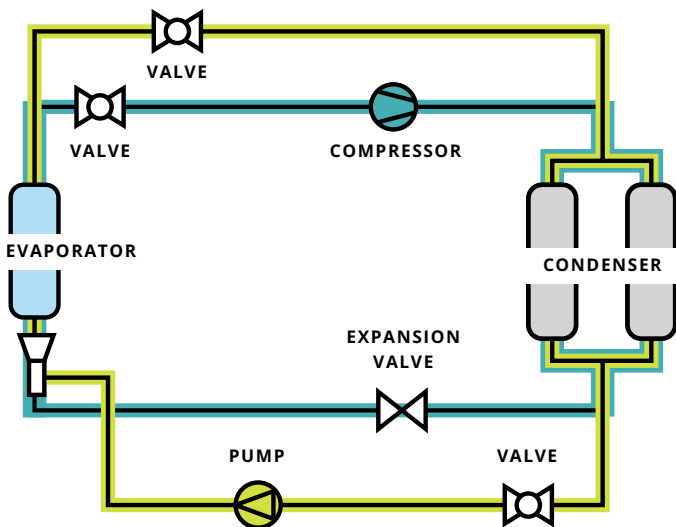
Automatically engages vapor compression system to maintain precise temperature and humidity setpoints

💎 **Key Benefit**

High efficiency that reduces energy use and lowers PUE under qualifying conditions—up to 70% reduction in power draw*

Full mechanical capacity on demand to protect uptime

*Actual savings and PUE impact depend on site design, climate zone, and controls configuration.

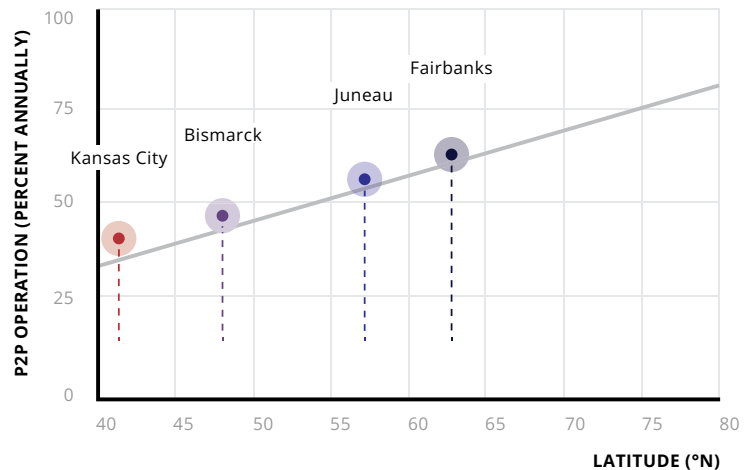


Pump Mode Operation Annually by Latitude

A diagnostic test was run using four different locations with varying degrees of temperature and humidity ranges. This graph shows the annual percentage of Pump Mode operation by latitude.

ASSUMPTIONS

- 80° Indoor Temperature
- 70% Load Capacity
- Standard Vapor Compression Operation



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ISO 9001 & AS9100 Certified
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