



Product brochure

Vertiv™ CoolLoop Thermal Wall

The turnkey thermal wall solution, optimized for slab floors and gallery-side mounting, ready for air and hybrid cooling/
supporting air and hybrid cooling



From chip to heat rejection: the Vertiv™ CoolLoop end-to-end systems and service strategy

A holistic chilled water strategy that intelligently optimizes and controls the entire thermal chain, from chip-level cooling to heat recovery, allowing efficiency, environmental responsibility and performance across the system.

Air cooling

Vertiv™ SmartAisle integrates cooling, power, racks, and monitoring into a compact, intelligent system that boosts efficiency and simplifies deployment for small to mid-sized data centers.

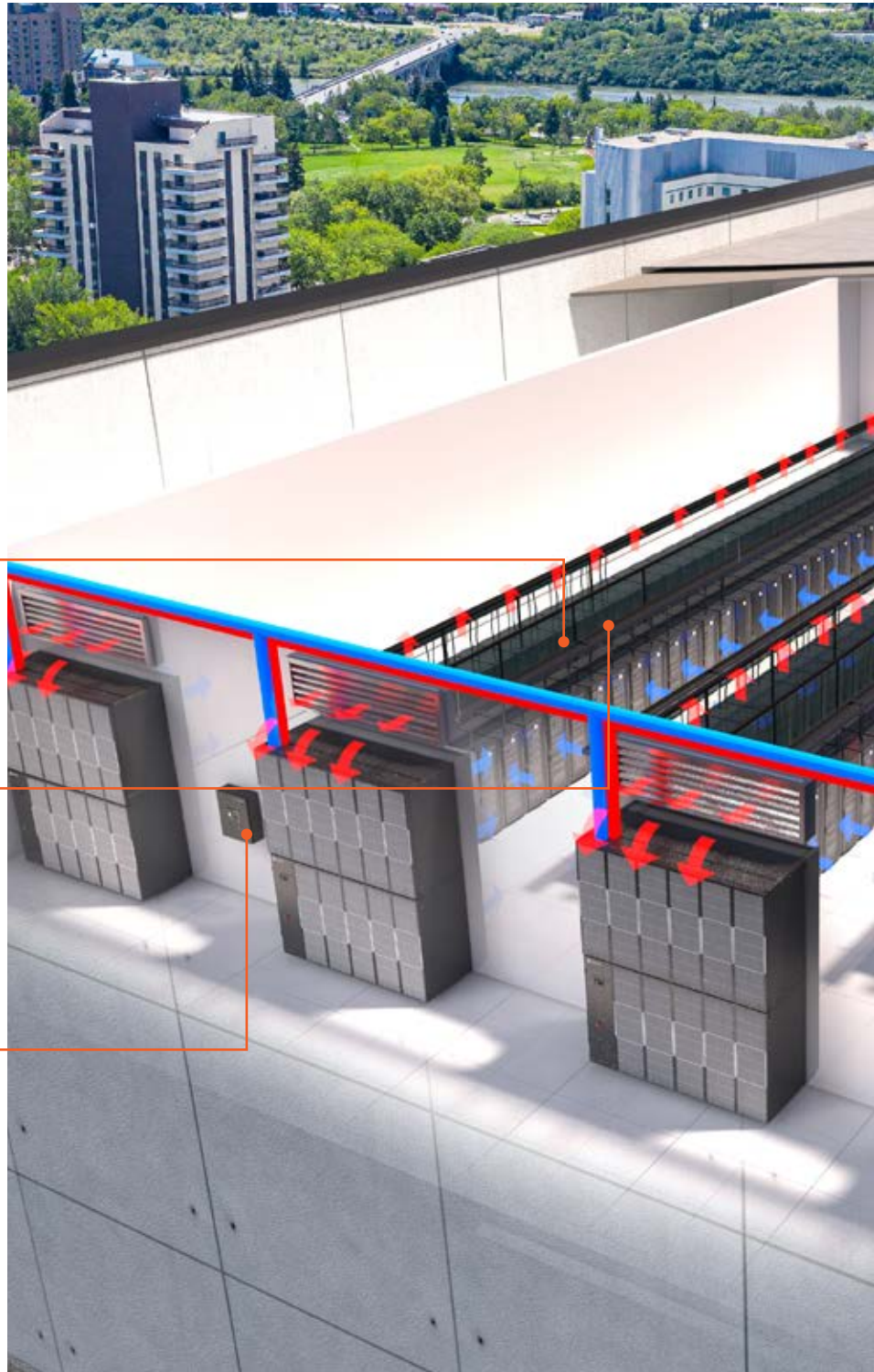
Liquid cooling

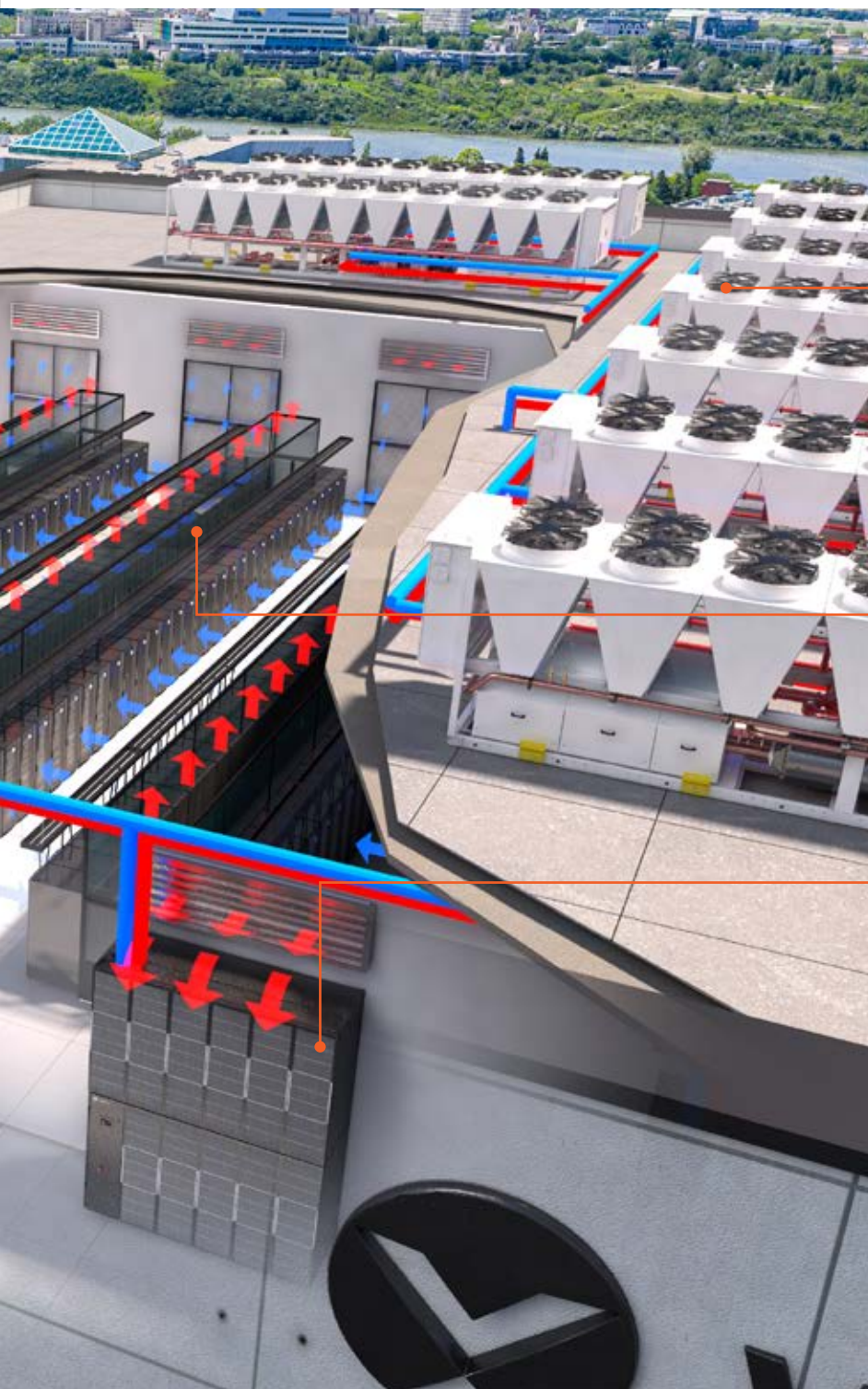
Vertiv™ CoolChip CDU delivers high-efficiency liquid cooling for high-density environments, enabling direct-to-chip and rear door heat exchanger applications with flexible deployment and precise temperature control.

Intelligent controls

Vertiv™ Liebert® iCOM™ unit and Vertiv™ system-level controls

Vertiv™ CoolChip CDU delivers high-efficiency liquid cooling for high-density environments, enabling direct-to-chip and rear door heat exchanger applications with flexible deployment and precise temperature control.





Vertiv™ CoolLoop Thermal Wall is part of a comprehensive and integrated chilled water architecture for hyperscale and colocation data centers, fully compatible with more traditional air cooling systems as well as with high-density hybrid solutions

Heat rejection and heat reuse

Vertiv™ CoolLoop Chiller, the inverter-driven screw compressors with very low-GWP chiller engineered to respond to the fluctuating thermal loads typical of AI applications, excelling in standard temperature ranges while providing essential redundancy in mission-critical environments.

End-to-end Vertiv™ services

Complementing these technologies, Vertiv's Services provide end-to-end support, from design and commissioning to ongoing optimization, allowing continuous reliability through expert deployment and proactive maintenance.

Heat collection

Vertiv™ CoolLoop Thermal Wall

Receiving chilled water from the Vertiv™ CoolLoop Chiller, blows high volumes of air that moves at low speed, horizontally, directly to the server room. This data center design with simple slab floors enables data center owners to construct new white space more quickly and cost-effectively.

Standardized for success:**save time, cut costs**

By integrating purpose-built solutions and factory-installed main components, Vertiv™ CoolLoop Thermal Wall eliminates the need for customization, cutting costs and accelerating installation while minimizing on-site installation and maintenance efforts.

Energy efficiency

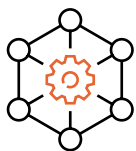
Vertiv™ CoolLoop Thermal Wall is designed to set new efficiency standards on chilled water thermal wall cooling systems for data centers. The unit's internal design combines market-leading technologies and optimizes the aerodynamic impact of all the internal components.

**Vertiv™ Liebert® iCOM™ smart controls**

Vertiv™ CoolLoop Thermal Wall embeds specific algorithms developed specially for non-raised floor applications, allowing precise and constant control of airflow and temperature under all working conditions.

Cooling you can count on

Cooling continuity and reliability are essential for Vertiv™ CoolLoop Thermal Wall and mission-critical infrastructures, and this thermal wall meets the stringent standards set by the most trusted certification authorities in data center design and operation.



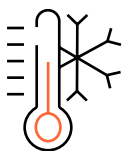
Standardized unit

- The product layout has been engineered to maximize the cooling density for footprint, this allowing to get more space for the IT equipment.
- Multiple options, accessories and features are available as standard. Furthermore, all the main components are factory installed, minimizing the installation costs on site.
- The product is a ready-to-use-solution, which allows quick responsiveness in each project, improving the timing to finalize the data centre design and accelerating speed-to-market.



Energy efficiency

- The unit's internal design combines market-leading technologies and optimize the aerodynamic impact of all the internal components. Any details like filter surface, electrical panel design or piping positioning enable a significant reduction of the internal air pressure drop comparing with a standard AHU that immediately becomes a benefit in terms of reduced unit power consumption.
- As a result of the latest evolution of the EC fans technology, unit energy efficiency improves. Utilizing powerful fans, unit cooling capacity increases with the same unit footprint.



Cooling continuity

- The cooling redundancy execution allows to split the unit in two independent models inside the same frame. In case the first model fails, the second one doesn't need to stop and can keep cooling the IT equipment without any interruption. The two models are directly connected to the same control brain, in this way avoiding in this way any interference with a cooling request from the IT equipment.
- The maximum return air working temperature is up to 45°C, this permitting the infrastructures facing the challenges of modern IT applications to develop an extremely efficient environment. Furthermore, the unit operating range can be extended up.
- ATS Control with Dual Disconnect Switches allows power connection to primary and secondary sources
- Capacitive Buffer provides 3 minutes of continuous power to the unit control (and continuous BMS communication).



Vertiv™ Liebert® iCOM™ smart controls

- Vertiv™ Liebert® iCOM™ embeds specific algorithms developed specially for non-raised floor application, allowing precise and constant control of airflow and temperature under all working conditions
- Ready for Teamwork of up to 32 units with optimization based on installation type, furthermore it allows for advanced control functionality (sharing sensor's data, standby rotation, lead-lag, cascade operation and rotating master function).
- Pre-configured controls include BMS capability and unit-to-unit communications to reduce field wiring and costly control solutions.



Vertiv™ CoolLoop Thermal Wall environmentally conscious features

- The unit design minimizes the aerodynamic impact of all the internal parts, allowing a reduction in the internal air pressure drop, which translates in reduced unit power consumption.
- Compliant with the ErP directive, the latest generation of EC fan technology results in highly efficient units.
- The pressure independent control valve regulates and maintains a constant flow improving water distribution.

Vertiv™ CoolLoop Thermal Wall at a glance

Main points	Key benefits
Cooling capacity up to 500 kW	For traditional air-cooled IT loads to advanced hybrid cooling for AI and HPC environments.
Space-saving cooling system	Solution engineered to maximize the cooling density for unit footprint.
Latest generation of EC fans	Powerful fans increase the cooling capacity at the same unit footprint.
Pressure independent control valve	System energy efficiency increased from better water distribution.
Multiple enhanced coils	Ad-hoc coils to best suit the new data center market trends.
Automatic Transfer Switch (ATS) Control with dual disconnect switches	To allow power connection to primary and secondary source.
Capacitive buffer	To provide 3 minutes of continuous power to the unit control (and continuous BMS communication).
IBC seismic certification	IBC Certification meets seismic rating: • Option 1: Sds of 0.75, Ip = 1.0 • Option 2: Sds of 2.5, Ip = 1.0
Remote humidifier contact	To provide a signal for activating a humidifier outside of the unit.
Smoke sensor	It samples return air, unit shutdown upon activation, sends visual & audible alarms.
High temp sensor	To sample return air temperature.
Integrated active THD mitigation fan	To maintain <5% THDi content down to 10% load, eliminating voltage bumps and enhancing fan reliability.
Vertiv™ Liebert® Liqui-Tect™	To sense presence of moisture and to activate alarm.
Dual float condensate pump	To pump condensate out of unit, sends an alarm and shuts unit down upon activation.
State-of-the-art Vertiv™ Liebert® iCOM™ controls and a modern network interface with the Unity card	Monitoring & Control features to further increase reliability, efficiency, and longevity of the system.
Vertiv™ Liebert® iCOM™ controls with auto-tuning feature factory installed	Optimize valve operations to extend valve life and fast start-up commissioning.



Vertiv™ CoolLoop Thermal Wall	CA60	CA80
Net Sensible Cooling Capacity - High Technology Coil [kW]	360	500
Power input [kW]	12.1	25.5
Airflow range [m3/h]	20000 - 60000	26500 - 90000
Spare Capacity [%]	20	10
Fan Quantity	4 and 6	8
Dimensions		
Length (in)	60	60
Width (in)	120	156
Height (in)	144.3	144.5



Vertiv™ CoolLoop Thermal Wall
CA60 Model up to 400 kW



Vertiv™ CoolLoop Thermal Wall
CA80 Model up to 500 kW

Rely on integrated project and lifecycle thermal services for superior data center protection

Guarantee continuity to your business activities with a service partner who stands by you throughout your critical equipment lifecycle. From the project phase with start-up and testing, to lifecycle maintenance contracts and operational support, Vertiv ensures your solution performs optimally.

Global presence & local resources

With the broadest, most comprehensive service presence in the industry and more than 1600 engineers dedicated to servicing US market, Vertiv allows that your business is always protected, and that service is available whenever needed 24 hours a day.

Premium response

With Vertiv you can count on an extensive supply of critical parts plus crash-kits ready for deployment, and on service engineers that can respond to requests in record time. To do so, they can rely on a solid knowledge-base, and established escalation procedures valid across the entire region. In addition, they can also benefit from advanced incident management, and widespread presence of Service Centers all enabling them to deliver premium restoration capabilities.

Commissioning phase	Technical activities	Project management	
Pre-project activity		- Project charter / project initiation docs - Identify stakeholder	
Level 0 Program and design	- Commissioning spec & plan - Engineering - Design review - Schedule integration - Submittal review - Commissioning procedure - Commissioning kick-off	- Work breakdown structure (WBS) - Supply chain & procurement management plan - Project team creation - Create risk management plan - Create communication management plan	- Create change management plan - Create project schedule - Health & safety assessment - Kick-off meeting with customer
Level 1 Factory witness test	Factory witness test		
Level 2 Delivery, qa/qc, installation assembly, field supervision	- Site acceptance inspection - Delivery & assembly - Equipment installation		- Manage issues, changes & risks - Report project status - Contract, financial & quality review - Health & safety review
Level 3 Start-up and site acceptance test	- Installation & startup - Pre-functional equipment verification - Site acceptance test	- Supply chain & procurement management - Execute project plan - Schedule on-site resource management - Facilitate team meetings & distributes minutes - Health & safety management	
Level 4 Functional performance testing	Functional performance test		
Level 5 Integrated system test support	- Integrated system test - Training & o&m verification		
Level 6 Close out & turn-over	- System manual - Seasonal testing - Warranty review & supplemental report - Commissioning report	- Customer acceptance - Handover to operation & maintenance - Lessons learned - Financial closure - Project closure	



Expertise & training

Vertiv service engineers are trained, experienced professionals who undergo an average of one week of intensive training each quarter, totalling one month of full-time training per year. Training includes both technology and safety, to ensure competent and safe field operations, reinforced by established procedures to follow and central technical support in case of need.



Supporting your business around the globe

Regular service of critical equipment supports maximum uptime and often reduces total cost of ownership. A service program ensures timely and proactive maintenance for avoiding unexpected, costly equipment downtime and enables optimal equipment operation. Vertiv service programs cover all technologies and can be tailored to suit individual business needs.



Project services

From project planning and design, through to equipment procurement, installation and commissioning, our project team offers comprehensive capabilities enabling speed of deployment and execution according to pre-defined and repeatable procedures. Vertiv engineers are endowed with the right tools and trained in their use, which supports proper installation, start-up, and maintenance.

Advanced incident management procedures leveraging site data allow Vertiv to be extremely effective in fault management and root cause analysis should it happen. Vertiv extensive service offering includes installation, startup, commissioning, maintenance, replacements, 24x7 remote monitoring and diagnostics, and much more.

Warranty contracts

Preferred Warranty
Preventive maintenance
Response time
Warranty inspection w/ Warranty
Total Warranty

After warranty contracts

Basic	Essential	Preferred
Preventive maintenance	Preventive maintenance	Preventive maintenance
Response time	Response time	Response time
-	Labor included	Labor included
-	-	Parts included

The world depends on data we power and cool™

Vertiv at-a-glance

Vertiv is a global leader in critical digital infrastructure for applications in data centers, communication networks, and commercial and industrial environments.

As businesses, industries, and communities become more connected, we pioneer and deliver end-to-end power and cooling technologies to help our customers stay resilient, optimized, and future-ready.

With our industry-leading innovative technologies and global services network, we are fueling the revolution of the digital world – keeping technology ecosystems running efficiently and without interruption.

Key facts



~\$8.0B
USD revenue¹



~31,000
employees globally



24
manufacturing
locations



60+
years in the industry



~4,000
field service engineers



310+
service centers



130+
countries served



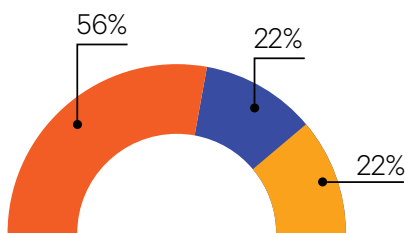
Westerville,
Ohio, USA
global headquarters



#1
in 3-phase large UPS⁴
and power switching
& distribution⁵

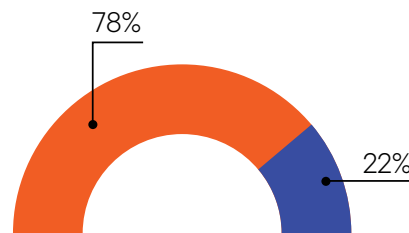


#1
in thermal
management³



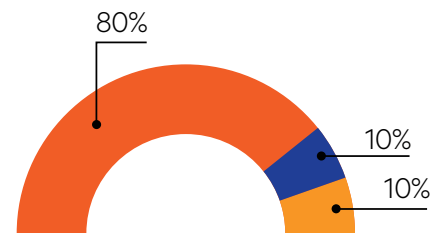
Geography¹

- Americas
- APAC
- EMEA



Portfolio¹

- Critical Infrastructure & Solutions
- Services & Spares



Market Segment^{1,2}

- Data Centers
- Communications Networks
- Commercial & Industrial

Note: ¹ Based on FY 2024 revenue; ² Market segment rounded to 5%; ³ Dell'Oro Data Center Physical Infrastructure reporting 2024. ⁴ Omdia UPS Hardware Market Tracker 2024, >250kva. ⁵ Omdia Data Center Power Distribution Tracker 2024. All else, company information as of December 31, 2024.



Global presence, local expertise

Headquartered in Westerville, Ohio, USA, Vertiv does business in more than 130 countries.

Worldwide

Manufacturing locations: 24

Service centers: 310+

Service field engineers: ~4,000

Technical support/response: ~300

Customer experience centers/labs: 27



● Americas

Manufacturing locations: 9

Service centers: 170+

Service field engineers: ~1,750

Technical support/response: ~120

Customer experience centers/labs: 4

● Europe, Middle East, and Africa

Manufacturing locations: 9

Service centers: 60+

Service field engineers: ~650

Technical support/response: ~130

Customer experience centers/labs: 12

● Asia Pacific

Manufacturing locations: 6

Service centers: 80+

Service field engineers: ~1,600

Technical support/response: ~50

Customer experience centers/labs: 11

Company information as of December 31, 2024.

