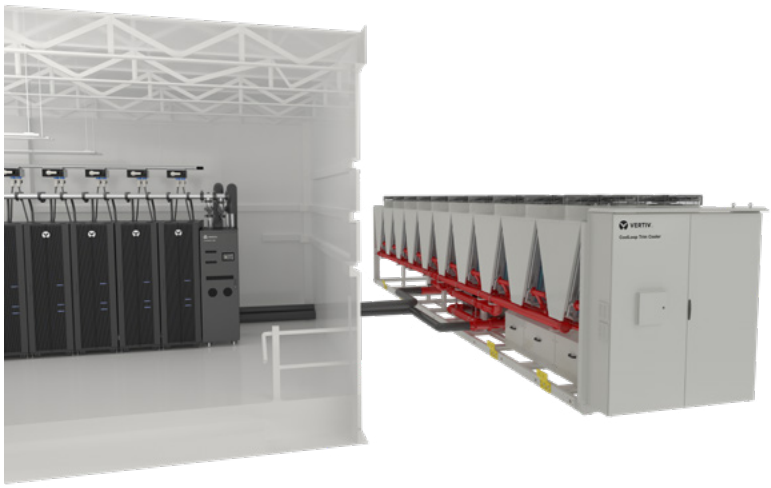
Vertiv™ CoolLoop Trim Cooler

The free cooling AI- and densification-ready cooler from 850 to nearly 3000 kW*

The Vertiv™ CoolLoop Trim Cooler is an AI-ready, environmentally responsible solution designed with the future in mind, preparing data centers for growing densification driven by AI advancements.



As technology advances and chip power densities increase, the temperature thresholds needed to efficiently cool future AI systems will evolve over time, with a wide range of expected density levels. On the other hand, water temperatures may not follow a predictable path, making the determination of the optimal temperature both a challenge and a potential risk.

This uncertain shift requires highly flexible cooling systems that can adapt to these changes. The next generation of cooling solutions will rely not only on liquid cooling, but also on **coolers capable of managing unpredictable fluid temperatures,** preparing data centers for any future developments.
By strategically designing cooling systems today, data center owners can seamlessly adapt to the evolving needs of AI-driven infrastructure.

Features

1. Up to 40°C supply water temperature.
2. Up to almost 3 MW* of cooling capacity in a single, compact frame.
3. Easy coupling with Vertiv™ CoolChip CDU and Vertiv™ CoolCenter Immersion systems.
4. Very low-GWP R1234ze refrigerant (GWP = 7 as per IPCC AR4).
5. Free cooling coils optimized for high ambient temperatures incorporating microchannel heat exchangers for superior heat transfer.
6. Inverter-driven technology.
7. Active harmonic filters in the electrical panel.
8. Wide range of external temperatures from -20°C to over 52°C.

How you benefit

1. **AI & Densification-ready with a future-oriented mindset:** Supports AI-driven densification advancements. Achieve up to 1.087 pPUE, with an efficiency increase of nearly 70%**.
2. **Compact and efficient design:** Net gain of over 40% cooling capacity without increasing the overall footprint.
3. **Liquid cooling-ready:** Supporting both air- and hybrid- cooled configurations combining air and liquid cooling capacity.
4. **Eco-conscious cooling:** Compliant with major current and future bans and EU F-Gas regulations for years to come lowering CO_2e emissions and allowing maximum seasonal efficiency especially at partial load.
5. **Free cooling optimization:** Handle operational peaks, while minimizing power consumption, providing increased flexibility.
6. **Improved efficiency:** The inverter driven technology used for compressors, EC fans and pumps allows the system to operate efficiently even during operational peaks modulating the speed of the compressor according to the demand.
7. **Space efficiency:** No additional roof space occupancy is required.
8. **Global flexibility for datacenter worldwide:** Suitable for data centers in various climates around the world.

** In the air-cooled configuration*

***Air-cooled IT load of 10 MW running at 80% capacity with water temperatures at 20°C achieving a pPUE of 1.15 with standard chillers. At a higher temperature of 35°C with Vertiv™ CoolLoop Trim Cooler achieving a higher pPUE estimated at 1.087 and an efficiency increase of nearly 70%.*

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