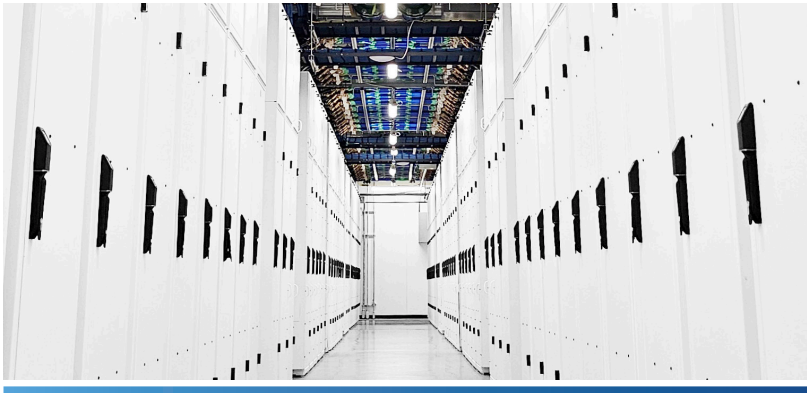DDC SOLUTIONS™

FUTURE PROOF
YOUR DATA CENTER
WITH DDC S-SERIES

Push beyond the limits of traditional data center cooling with DDC S-Series, patented cabinet technology that supports densities from 20kW up to 100kW+ air and 400kW+ liquid-to-chip ready cooling.

Challenge

AI and HPC workloads are quickly changing the data center landscape. Over the next few years, they will boost data center demand dramatically and will propel a transformation in data center design. The time to upgrade, retrofit, or build your data center to ensure future viability is now. But there are space limitations, resource sustainability concerns, and an increasing need for efficiency.

Solution Overview

Meet capacity and density needs without sacrificing performance. The Scalable S-Series Data Center Cabinet Platform with Dynamic Density Control™ (DDC) features scalable technology design that supports low-to-mid density requirements within the ultra-high-density air-cooled system with liquid-to-chip ready built in. The modular design allows your company to scale, adding capacity as demands grow allowing you to lower total cost of ownership. Patented DDC technology adjusts airflow and temperature dynamically based on equipment loads, delivering better hardware performance, fewer component failures, and increased efficiency for more sustainable operation. Reduce operating and financial risk with NEMA 3R certified cabinets, built-in fire suppression, real-time monitoring, and security.

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100 KW
AIR-COOLED DENSITY

UP TO 100 KW AIR-COOLED

400KW
LIQUID-TO-CHIP COOLED

LIQUID TO THE CHIP READY up to 400kW

1-1000+
SCALABLE INSTALLATION

1-1000+ SCALABLE INSTALLATION

INDUSTRY FACT

Technology innovations in liquid cooling have improved its ease of use and lowered the cost to retrofit operational data centers.[1]

- 2024 Trends in Data Center Services & Infrastructure, 451 Research and S&P Global

S-SERIES CABINETS + DCIM MANAGEMENT SOFTWARE = A COMPLETE SOLUTION FOR DATA CENTERS

Dynamically manage and monitor your S-Series cabinets to reduce risk and improve efficiency with real-time, predictive environmental control for your ulta-high-density air, and liquid-to-chip cooled equipment.

BY THE NUMBERS

DDC S-Series delivers:

- 100-kilowatt air-cooled density
- 400-kilowatt liquid-to-chip ready
- 1-1000+ cabinet scalability
- 1000+ global deployments

S

SERIES

ULTRA-HIGH-DENSITY COOLING

Business Value

DDC's Scalable S-Series meets the needs of new data centers, modernizations, and retrofits, delivering the following benefits:

Cabinet for all Densities
- Scale up your facility with a platform that supports medium density 20kW up to liquid-to-the-chip-ready cabinets (400kW)
- Ultra-high-density air-cooled cabinets up to 100kW
- Allows modular design to build as you grow

Better ROI & Performance
- Lower Cost/kW, TCO and construction costs
- Increases efficiency with lower PUE

Lowers Risk
- NEMA3R reduces operating and financial risk
- System redundancy avoids single point of failure

Smarter Design
- Less carbon and helps WUE sustainability initiatives
- Ensures scalable installation of 1 or 1,000+ cabinets

Cabinet dimensions

Rack Widths 30" & 36"
45 RMU 116"H x 82"D
48 RMU 121.25"H x 82"D
52 RMU 126.5"H x 82"D
60 RMU 140.5"H x 82"D
Weight: 790 – 870 lbs

> "DDC allowed Tierpoint to deliver the **highest density infrastructure** with the lowest cost to build."
> —Tierpoint

How it Works

The DDC Scalable S-Series cabinet is a self-contained, scalable, and cost-effective data center solution offering:

- **Modularity:** DDC's modular design allows you to deploy 1–1,000+ cabinets matching build-out timelines to IT and budget demands. Deploy ultra-high-density cabinets next to traditional IT cabinets and dynamically manage density as workloads expand and contract for ultimate flexibility.

- **Scalability:** As workloads transform, dynamically move from 1kW to 100kW using air cooling. Direct liquid-to-chip capabilities can accommodate up to 400kW per cabinet, ensuring your business is future-proofed.

- **Location Flexibility:** Deploy the S-Series in a wide variety of locations due to reduced ambient noise and and heat transfer into your environment.

- **Efficiency:** DDC's dynamic management and real-time monitoring DCIM software uses sensors throughout the cabinet to ensure consistent temperature within two degrees top to bottom of the cabinet, dew point, and CFM airflow to a surgical degree.

- **Ruggedized Engineering:** S-Series is engineered with a reinforced sealing between hot and cold decks to optimize internal cooling and minimize heat transfer; stronger tops so technicians can walk on the tops of the cabinets for maintenance, servicing, and rigging; and simplified chilled water feeds to prevent leaks.

- **Risk Mitigation:** Reduce operation and financial risk to expensive equipment from fire and water in your data center. Lower your loss footprint from an entire data center to a single cabinet designed with NEMA 3R certification, built-in security and fire suppression, redundant motors and coils, and granular environmental control.

Learn more about DDC and their complete data center cooling solutions at ddcsolutions.com.

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DDC™ SOLUTIONS