

Data Center Fan Wall (FNW)

Factory-built chilled-water fan wall platform for hyperscale, AI/HPC, colocation, and enterprise white space. Developed from data center architecture: structural frame, coil package, fan array, piping, controls, and FAT discipline. Designed for perimeter or gallery-side deployment with service-side access and direct conditioned-air delivery to the data hall.



SPECIFICATIONS



FNW-200 / 400 / 650 / 1000

Product family



≈28,000 - 120,000 CFM

Airflow range, preliminary



200 / 400 / 650 / 1000 kW

Cooling capacity, nominal



4 - 12 EC fans

6/8/10-row CW coils

KEY ADVANTAGES

- High-capacity horizontal air delivery for solid-floor data halls
- Factory-built cooling bay reduces field labor, piping, wiring, and QA risk
- Service-side fan, valve, controls, filter, and drain access from corridor / gallery
- Scales from FNW-200 to FNW-1000 with N, N+1, and phased expansion strategies

Let's talk about your next project.
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FAN WALL DETAIL & OPERATING ENVELOPE

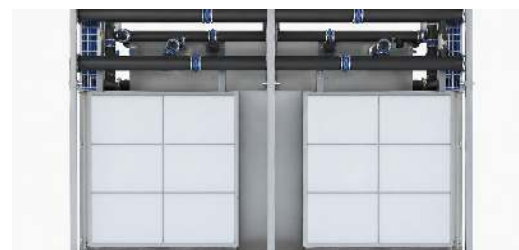
Product family range, and white-space integration considerations.

TYPICAL MODULE ELEMENTS

- ✓ Large chilled-water coil section; copper tube / aluminum fin baseline; 6, 8, or 10 row options
- ✓ EC centrifugal / plug fan array with fan-cell isolation and block-off plate option
- ✓ Factory-piped CHWS / CHWR headers with PICV / EPIV, isolation valves, vents, drains, and P/T ports
- ✓ Factory control panel, sensors, leak detection, alarms, BACnet/IP, and optional Modbus
- ✓ 2 in insulated service panels, 4 in base rail, sloped drain pan, and service-side access

TYPICAL APPLICATIONS

- ✓ Hyperscale white space
- ✓ Colocation halls
- ✓ Enterprise data centers
- ✓ AI / HPC-ready cooling corridors
- ✓ Perimeter or gallery-side deployments
- ✓ Standard data hall fan wall bays



SERVICE / PIPING SIDE ELEVATION VIEW

Factory-piped CHWS / CHWR headers



WHITE-SPACE DISCHARGE / COIL SIDE

Conditioned-air delivery to the data hall



FRONT & REAR ELEVATION

Coil face and service / piping side

FNW-1000 SUBMITTED SELECTION

Final capacities, coil selections, fan curves, controls, listing path, and customer options remain project-specific and must be validated before release.

ATTRIBUTE	VALUE
Reference unit	FNW-1000-G1 preliminary large-bay fan wall
Cooling capacity	1,102 kW gross coil sensible; 1,034 kW net sensible
Airflow	120,000 ACFM; 12 EC fans; 10,000 CFM per fan
Coil face velocity	625 FPM; 192 sq ft total net finned face area
Water conditions	286 GPM; 71.6 F entering / 97.9 F leaving; 26.3 F water delta T
Unit water pressure drop	15.0 psi submitted design value, including internal engineering allowance
Physical package	216 in H x 148.5 in W x 60 in D; two stacked 108 in sections
Family range	FNW-200 / 400 / 650 / 1000; 200 - 1000 kW nominal