

Comparison of Current Cooling Solutions with ThermoCoolReserve™ for Data Center Applications

About ThermoCoolReserve

ThermoCoolReserve™ system is a game changing cooling solution that utilizes a waste heat-driven cooling and thermal energy storage technologies. It also has AI assisted control for cooling load prioritization and predictive maintenance for data centers and other industrial and commercial applications. Renewable energy and grid electricity can also be used as alternative heat source for ThermoCoolReserve™



Feature	Evaporative Cooling	Air Cooling	Electric Chiller	ThermoCoolReserve™
Cooling source	Water evaporation	Ambient air	Electricity	Waste heat / renewable / Grid
Dependence on ambient	High (wet-bulb)	High (dry-bulb)	Medium (condenser)	Low
Water use	High	Low	Medium (cooling towers)	Low (closed-loop)
Energy source	Fan + pump	Fan	Electricity	Waste heat / renewables / Grid
Temperature precision	Moderate	Low	High	High
Backup cooling capacity	None	None	Optional	Built-in via
Climate adaptability	Dry climates	Cool climates	All climates	All climates
Load shifting capability	None	None	Optional	Integrated
Redundancy	External systems	External systems	Built-in N+1	Built-in

Why ThermoCoolReserve Provides Maximum Value

- + Built-in flexibility to variable cooling demand
- + Eliminates dependence on water supply, permits, chemical treatment
- + Long-term OPEX savings more than makes up for moderately high CAPEX
- + Boosts uptime and reliability during power outages, reducing diesel generator and emergency chiller
- + Peak Demand Reduction: 6-8 hours of peak shaving by using built-in backup cooling solution

Contact Us

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