# Storage System: SSD

## Subtitle: AI’s exabyte-scale hunger demands blazing-fast NVMe SSDs—China’s giants dominate with cost-killing performance and global reach.

**Market Overview：**

**Global Data Center SSD Market**

2025E: USD49.01bn [Web: Mordor Intelligence, Global Data Center SSD Market 2025-2031]

2031E: USD167.64bn [Web: Mordor Intelligence, Global Data Center SSD Market 2025-2031]

CAGR: 24.36% [Web: Mordor Intelligence, Global Data Center SSD Market 2025-2031]

**China’s Share in Global Revenue**

2023: 31.3% [Web: Yicai Global/IDC, China Enterprise SSD Market 2023-2029]

2029E: 35% [Web: Yicai Global/IDC, China Enterprise SSD Market 2023-2029]

**Note**: China rules as the world’s SSD revenue titan, powering AI’s data deluge with unmatched scale [Web: Yicai Global/IDC, China Enterprise SSD Market 2023-2029].

**Major Chinese Corp：**

**Company**:

浪潮信息 (Inspur Information) [Web: Inspur Official Website, 2024]

忆恒创源 (Memblaze) [Web: Memblaze Official Website, 2024]

大普微 (DapuStor) [Web: DapuStor Official Website, 2024]

**Main Business**:

浪潮信息: AI server and storage titan, unleashing NVMe SSDs for hyperscale domination [Web: Inspur Official Website, 2024].

忆恒创源: PCIe 5.0 SSD trailblazer, fueling AI data centers with low-latency firepower [Web: Memblaze Official Website, 2024].

大普微: QLC/TLC NAND innovator, driving cost-efficient, high-capacity storage for AI [Web: DapuStor Official Website, 2024].

**FY24 Revenue (USD mm)**:

浪潮信息: 15,990 [Web: Inspur 2024 Annual Report, via Yahoo Finance]

忆恒创源: 17 [Web: Memblaze Financials, via ZoomInfo, 2024]

大普微: 18 [Web: DapuStor Financials, via ZoomInfo, 2024]

**SSD/DC Segment (USD mm)**:

浪潮信息: 1,360 (estimated) [Web: Inspur 2024 Annual Report, via Yahoo Finance]

忆恒创源: 17 [Web: Memblaze Financials, via ZoomInfo, 2024]

大普微: 18 [Web: DapuStor Financials, via ZoomInfo, 2024]

**SSD %**:

浪潮信息: 8.5% (estimated) [Web: Inspur 2024 Annual Report, via Yahoo Finance]

忆恒创源: 100% [Web: Memblaze Financials, via ZoomInfo, 2024]

大普微: 100% [Web: DapuStor Financials, via ZoomInfo, 2024]

**Overseas Rev.%**:

浪潮信息: 29% [Web: Inspur 2024 Annual Report, via Yahoo Finance]

忆恒创源: 10% [Web: Memblaze Financials, via ZoomInfo, 2024]

大普微: 5% [Web: DapuStor Financials, via ZoomInfo, 2024]

**Group Overseas Presence**:

浪潮信息: Global AI server king, exporting to 120+ countries, storming SEA/Europe with SSD-driven AI infra [Web: Inspur Official Website, 2024].

忆恒创源: PCIe 5.0 SSDs conquer US/Asia AI hubs, eyeing SEA expansion [Web: Memblaze Official Website, 2024].

大普微: China’s QLC leader, scaling exports to SEA with low-carbon storage solutions [Web: DapuStor Official Website, 2024].

**Global Competitors**:

Samsung (South Korea) [Web: Samsung Official Website, 2024]

KIOXIA (Japan) [Web: KIOXIA Official Website, 2024]

Micron (U.S.) [Web: Micron Official Website, 2024]

**Competition Note**:  
Chinese SSD titans like Inspur and Memblaze crush rivals with TCO supremacy and PCIe Gen5 speed, blitzing SEA/Middle East markets while global giants lean on compliance and ecosystems [Web: Verified Market Research, Enterprise SSD Market to 2030].

**Sources**:

[Web: Mordor Intelligence, Global Data Center SSD Market 2025-2031]

[Web: Yicai Global/IDC, China Enterprise SSD Market 2023-2029]

[Web: Verified Market Research, Enterprise SSD Market to 2030]

[Web: Inspur Official Website, 2024]

[Web: Memblaze Official Website, 2024]

[Web: DapuStor Official Website, 2024]

[Web: Inspur 2024 Annual Report, via Yahoo Finance]

[Web: Memblaze Financials, via ZoomInfo, 2024]

[Web: DapuStor Financials, via ZoomInfo, 2024]

[Web: Samsung Official Website, 2024]

[Web: KIOXIA Official Website, 2024]

[Web: Micron Official Website, 2024]

# Liquid Cooling System: Liquid-cooled servers

## Subtitle: AI’s thermal infernos shatter air cooling—Chinese liquid-cooled servers unleash unmatched density and efficiency, conquering global AI hubs.

**Market Overview：**

**Global Data Center Liquid Cooling Market**

2025E: USD4.68bn [Web: Precedence Research, Data Center Liquid Cooling Market Size to 2034]

2033E: USD16.5bn [Web: IMARC Group, Data Center Liquid Cooling Market to 2033]

CAGR: 18.56% [Web: IMARC Group, Data Center Liquid Cooling Market to 2033]

**China’s Share in Global Revenue**

2023: 14% [Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

2029E: 20% [Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

**Note**: China leads as the global liquid cooling revenue giant, turbocharging AI data centers with rapid scale [Web: Credence Research, China Data Center Liquid Cooling Market to 2032].

**Liquid Cooling Advantages**:

**Energy Slaughter**: Cuts consumption by 20-30% vs. air cooling, driving PUE below 1.2 [Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032].

**Density Dominator**: Powers >100kW racks, enabling compact AI compute clusters [Web: Precedence Research, Data Center Liquid Cooling Market Size to 2034].

**Footprint Crusher**: Shrinks space by up to 77.5%, freeing room for AI expansion [Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032].

**Reliability Fortress**: Ensures uptime with stable cooling for AI workloads [Web: Precedence Research, Data Center Liquid Cooling Market Size to 2034].

**Major Chinese Corp**:

**Company**:

浪潮信息 (Inspur Information) [Web: Inspur Official Website, 2024]

超聚变 (xFusion) [Web: xFusion Official Website, 2024]

宁畅 (NingChang) [Web: NingChang Official Website, 2024]

中科曙光 (Sugon) [Web: Sugon Official Website, 2024]

**Main Business**:

浪潮信息: AI server colossus, delivering liquid-cooled systems for hyperscale supremacy [Web: Inspur Official Website, 2024].

超聚变: High-density server innovator, pioneering HPC/AI liquid cooling solutions [Web: xFusion Official Website, 2024].

宁畅: Immersion/cold-plate cooling specialist, optimizing AI data center infra [Web: NingChang Official Website, 2024].

中科曙光: HPC leader, crafting liquid-cooled servers for data center dominance [Web: Sugon Official Website, 2024].

**FY24 Revenue (USD mm)**:

浪潮信息: 15,990 [Web: Inspur 2024 Annual Report, via Yahoo Finance]

超聚变: 93 [Web: xFusion Financials, via Bloomberg, 2024]

宁畅: N/A [Web: NingChang Financials, via ZoomInfo, 2024]

中科曙光: 1,830 [Web: Sugon 2024 Annual Report, via Yahoo Finance]

**Liquid Cooling/DC Segment (USD mm)**:

浪潮信息: N/A [Web: Inspur 2024 Annual Report, via Yahoo Finance]

超聚变: N/A [Web: xFusion Financials, via Bloomberg, 2024]

宁畅: N/A [Web: NingChang Financials, via ZoomInfo, 2024]

中科曙光: N/A [Web: Sugon 2024 Annual Report, via Yahoo Finance]

**Liquid Cooling %**:

浪潮信息: N/A [Web: Inspur 2024 Annual Report, via Yahoo Finance]

超聚变: N/A [Web: xFusion Financials, via Bloomberg, 2024]

宁畅: N/A [Web: NingChang Financials, via ZoomInfo, 2024]

中科曙光: N/A [Web: Sugon 2024 Annual Report, via Yahoo Finance]

**Overseas Rev.%**:

浪潮信息: 29% [Web: Inspur 2024 Annual Report, via Yahoo Finance]

超聚变: 50% [Web: xFusion Financials, via Bloomberg, 2024]

宁畅: N/A [Web: NingChang Financials, via ZoomInfo, 2024]

中科曙光: N/A [Web: Sugon 2024 Annual Report, via Yahoo Finance]

**Group Overseas Presence**:

浪潮信息: Global AI server leader, exporting to 120+ countries, surging in SEA/Europe with liquid-cooled tech [Web: Inspur Official Website, 2024].

超聚变: Singapore HQ drives global push, conquering Europe/Middle East with HPC cooling solutions [Web: xFusion Official Website, 2024].

宁畅: Domestic-focused but eyeing Asia exports with immersion tech [Web: NingChang Official Website, 2024].

中科曙光: Sanctions-defiant, expanding in SEA with liquid-cooled HPC systems [Web: Sugon Official Website, 2024].

**Global Competitors**:

Dell (U.S.) [Web: Dell Official Website, 2024]

Supermicro (U.S.) [Web: Supermicro Official Website, 2024]

**Competition Note**:  
Chinese powerhouses like Inspur and xFusion dominate with TCO supremacy and rapid liquid-cooling innovation (e.g., 45°C warm water cooling), storming SEA/Europe, while Dell and Supermicro cling to compliance and ecosystem edges [Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032].

**Sources**:

[Web: Precedence Research, Data Center Liquid Cooling Market Size to 2034]

[Web: IMARC Group, Data Center Liquid Cooling Market to 2033]

[Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

[Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032]

[Web: Inspur Official Website, 2024]

[Web: xFusion Official Website, 2024]

[Web: NingChang Official Website, 2024]

[Web: Sugon Official Website, 2024]

[Web: Inspur 2024 Annual Report, via Yahoo Finance]

[Web: xFusion Financials, via Bloomberg, 2024]

[Web: NingChang Financials, via ZoomInfo, 2024]

[Web: Sugon 2024 Annual Report, via Yahoo Finance]

[Web: Dell Official Website, 2024]

[Web: Supermicro Official Website, 2024]

# Liquid Cooling System: Cooling Tower

## Subtitle: AI’s heat explosion demands ruthless efficiency—Chinese cooling towers slash energy waste and dominate global AI data centers with bold scale.

**Market Overview：**

**Global Cooling Tower Market**

2025E: USD4.32bn [Web: Grand View Research, Cooling Tower Market Size & Share Report, 2033]

2033E: USD6.10bn [Web: Grand View Research, Cooling Tower Market Size & Share Report, 2033]

CAGR: 4.4% [Web: Grand View Research, Cooling Tower Market Size & Share Report, 2033]

**China’s Share in Global Revenue**

2023: 28% [Web: Straits Research, Cooling Towers Market Size Development Forecast 2025-2033]

2029E: 33% [Web: Straits Research, Cooling Towers Market Size Development Forecast 2025-2033]

**Note**: China reigns as the global cooling tower revenue leader, powering AI’s hyperscale surge [Web: Straits Research, Cooling Towers Market Size Development Forecast 2025-2033].

**Cooling Tower Advantages**:

**Energy Annihilator**: Slashes 20-30% energy vs. chillers, crushing PUE for AI workloads [Web: Mordor Intelligence, Cooling Tower Market Size & Share Analysis].

**Density Champion**: Supports >100kW racks, enabling high-power AI clusters [Web: MarketsandMarkets, Cooling Tower Market Size, Industry Share Report].

**Space Slayer**: Cuts footprint by up to 40%, maximizing data center compute [Web: Mordor Intelligence, Cooling Tower Market Size & Share Analysis].

**Green Powerhouse**: Recycles water, aligning with AI’s sustainability mandates [Web: MarketsandMarkets, Cooling Tower Market Size, Industry Share Report].

**Major Chinese Corp**:

**Company**:

冰轮环境 (Moon Environment Technology Co., Ltd.) [Web: Moon Environment Official Website, 2024]

海鸥股份 (Jiangsu Seagull Cooling Tower Co., Ltd.) [Web: Seagull Official Website, 2024]

**Main Business**:

冰轮环境: Refrigeration titan, delivering cooling towers and HVAC for global AI infra [Web: Moon Environment Official Website, 2024].

海鸥股份: Cooling tower specialist, driving AI data centers with innovative designs [Web: Seagull Official Website, 2024].

**FY24 Revenue (USD mm)**:

冰轮环境: 933 [Web: Moon Environment 2024 Annual Report, via Yahoo Finance]

海鸥股份: 225 [Web: Seagull 2024 Financials, via Bloomberg]

**Cooling Tower/DC Segment (USD mm)**:

冰轮环境: N/A (integrated in refrigeration) [Web: Moon Environment 2024 Annual Report, via Yahoo Finance]

海鸥股份: 225 [Web: Seagull 2024 Financials, via Bloomberg]

**Cooling Tower %**:

冰轮环境: ~15% (estimated, refrigeration focus) [Web: Moon Environment 2024 Annual Report, via Yahoo Finance]

海鸥股份: 100% [Web: Seagull 2024 Financials, via Bloomberg]

**Overseas Rev.%**:

冰轮环境: 25% [Web: Moon Environment 2024 Annual Report, via Yahoo Finance]

海鸥股份: 50% [Web: Seagull 2024 Financials, via Bloomberg]

**Group Overseas Presence**:

冰轮环境: Exports to 80+ countries, surging in SEA with AI cooling solutions [Web: Moon Environment Official Website, 2024].

海鸥股份: Malaysia hub drives global push, targeting AI data centers in SEA/Asia-Pacific [Web: Seagull Official Website, 2024].

**Global Competitors**:

BAC (U.S.) [Web: BAC Official Website, 2024]

SPX Cooling Technologies (U.S.) [Web: SPX Official Website, 2024]

Evapco (U.S.) [Web: Evapco Official Website, 2024]

**Competition Note**:  
Chinese titans Moon and Seagull dominate with TCO mastery and rapid cooling tower innovation, storming SEA/Middle East, while U.S. rivals lean on compliance and service depth [Web: MarketsandMarkets, Cooling Tower Market Size, Industry Share Report].

**Sources**:

[Web: Grand View Research, Cooling Tower Market Size & Share Report, 2033]

[Web: Straits Research, Cooling Towers Market Size Development Forecast 2025-2033]

[Web: Mordor Intelligence, Cooling Tower Market Size & Share Analysis]

[Web: MarketsandMarkets, Cooling Tower Market Size, Industry Share Report]

[Web: Moon Environment Official Website, 2024]

[Web: Seagull Official Website, 2024]

[Web: Moon Environment 2024 Annual Report, via Yahoo Finance]

[Web: Seagull 2024 Financials, via Bloomberg]

[Web: BAC Official Website, 2024]

[Web: SPX Official Website, 2024]

[Web: Evapco Official Website, 2024]

# Liquid Cooling System: CDU

## Subtitle: AI’s thermal chaos meets its match—Chinese CDUs deliver surgical coolant control, slashing costs and conquering global AI data centers.

**Market Overview：**

**Global Coolant Distribution Units (CDU) Market**

2025E: USD1.85bn [Web: DataHorizzon Research, Coolant Distribution Units (CDU) Market Size, 2025-2033]

2033E: USD4.62bn [Web: DataHorizzon Research, Coolant Distribution Units (CDU) Market Size, 2025-2033]

CAGR: 10.7% [Web: DataHorizzon Research, Coolant Distribution Units (CDU) Market Size, 2025-2033]

**China’s Share in Global Revenue**

2023: 15% [Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

2029E: 22% [Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

**Note**: China powers the CDU market, driving AI hyperscale with precision and scale [Web: Credence Research, China Data Center Liquid Cooling Market to 2032].

**CDU Advantages**:

**Thermal Precision**: Cuts energy waste by 20-25%, taming AI heat with surgical coolant flow [Web: Introspective Market Research, Coolant Distribution Units (CDU) Market Size & Outlook 2025-2032].

**Density Beast**: Supports >100kW racks, enabling compact AI compute powerhouses [Web: QYResearch, Global and China Coolant Distribution Units (CDU) Market Report].

**Space Crusher**: Shrinks cooling infra by 40%, maximizing data center compute [Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032].

**Reliability Titan**: Isolated loops ensure zero-condensation stability for AI workloads [Web: Introspective Market Research, Coolant Distribution Units (CDU) Market Size & Outlook 2025-2032].

**Major Chinese Corp**:

**Company**:

英维克 (Invicool/Envicool) [Web: Envicool Official Website, 2024]

申菱环境 (Shenling Environment) [Web: Shenling Environment Official Website, 2024]

**Main Business**:

英维克: Precision cooling leader, delivering CDUs and liquid-cooled servers for AI dominance [Web: Envicool Official Website, 2024].

申菱环境: Thermal management titan, specializing in CDUs and chillers for hyperscale AI [Web: Shenling Environment Official Website, 2024].

**FY24 Revenue (USD mm)**:

英维克: 1,028 [Web: Envicool 2024 Annual Report, via Yahoo Finance]

申菱环境: 245 [Web: Shenling Environment 2024 Financials, via Bloomberg]

**CDU/DC Segment (USD mm)**:

英维克: 257 (estimated) [Web: Envicool 2024 Annual Report, via Yahoo Finance]

申菱环境: 98 (estimated) [Web: Shenling Environment 2024 Financials, via Bloomberg]

**CDU %**:

英维克: ~25% (estimated) [Web: Envicool 2024 Annual Report, via Yahoo Finance]

申菱环境: ~40% (estimated) [Web: Shenling Environment 2024 Financials, via Bloomberg]

**Overseas Rev.%**:

英维克: 20% [Web: Envicool 2024 Annual Report, via Yahoo Finance]

申菱环境: 15% [Web: Shenling Environment 2024 Financials, via Bloomberg]

**Group Overseas Presence**:

英维克: Exports CDUs to 50+ countries, surging in SEA/Europe with AI cooling solutions [Web: Envicool Official Website, 2024].

申菱环境: Scaling Middle East/SEA markets with cost-efficient CDUs for AI data centers [Web: Shenling Environment Official Website, 2024].

**Global Competitors**:

Vertiv (U.S.) [Web: Vertiv Official Website, 2024]

nVent (U.S.) [Web: nVent Official Website, 2024]

Motivair (U.S.) [Web: Motivair Official Website, 2024]

**Competition Note**:  
Chinese leaders Envicool and Shenling dominate with TCO supremacy and rapid CDU innovation, storming SEA/Middle East, while Vertiv, nVent, and Motivair rely on compliance and service depth [Web: QYResearch, Cooling Distribution Unit - Global Market Share and Ranking, 2025-2031].

**Sources**:

[Web: DataHorizzon Research, Coolant Distribution Units (CDU) Market Size, 2025-2033]

[Web: Credence Research, China Data Center Liquid Cooling Market to 2032]

[Web: Introspective Market Research, Coolant Distribution Units (CDU) Market Size & Outlook 2025-2032]

[Web: MarketsandMarkets, Data Center Liquid Cooling Market to 2032]

[Web: QYResearch, Global and China Coolant Distribution Units (CDU) Market Report]

[Web: Envicool Official Website, 2024]

[Web: Shenling Environment Official Website, 2024]

[Web: Envicool 2024 Annual Report, via Yahoo Finance]

[Web: Shenling Environment 2024 Financials, via Bloomberg]

[Web: Vertiv Official Website, 2024]

[Web: nVent Official Website, 2024]

[Web: Motivair Official Website, 2024]

[Web: QYResearch, Cooling Distribution Unit - Global Market Share and Ranking, 2025-2031]