



ByteCool™

Direct-to-Chip Liquid Cooling System

> > Foundation of Digital Future

The one stop precision cooling solutions for you to build
High Density, Efficient and Sustainable Data Centers.



Efficiency Prefabricated

Why Choose Us

We are experts in data center thermal management system.



Quality

Products designed with heart featuring reliable quality and balanced cost to improve your business margin and performance.



Speed

A professional team always standby with service spirit and quick response to support your business agility.



Flexibility

Fully customizable as per your requirements to build your own product solution and boost your own business.

Certifications



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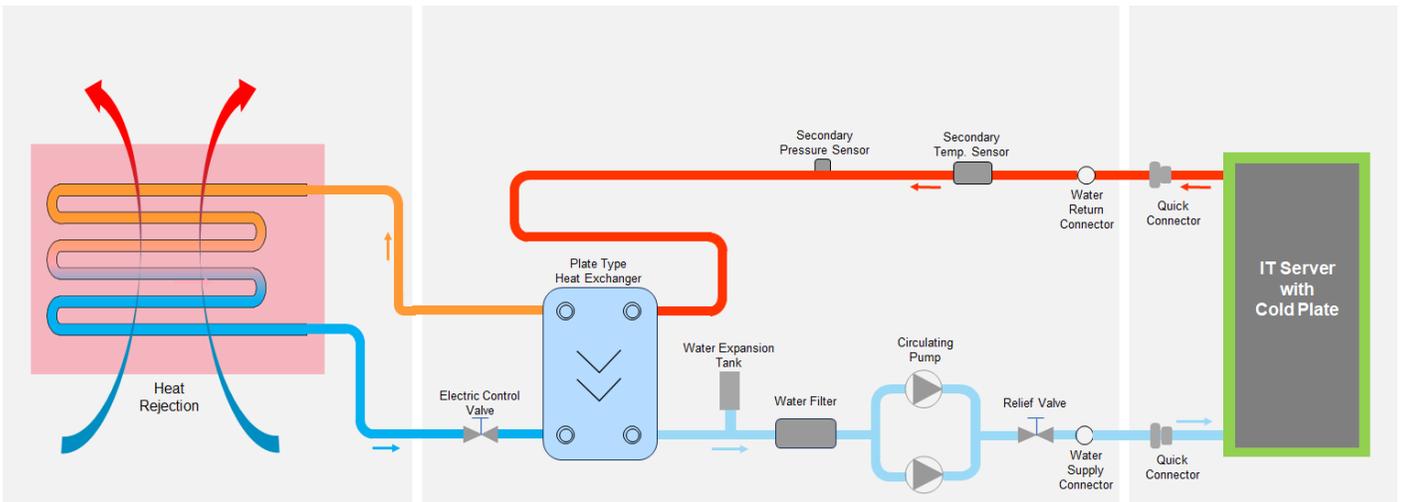
The World Going Sustainable



We are standing at an important tuning point, where we need to use the most advanced and reliable technologies to build data centers into the Energy Efficient and Carbon Neutral way.

Our Efficiency Approach

GREEN DATA CENTER



Maximized Efficiency with Free Cooling



Smart & Intelligent Control



Full year 7x24 Uptime with hybrid working mode.



Integration from Components to System

ByteCool™ Liquid Cool CDU

The high power density of water-cooled server systems presents a significant challenge for their cooling systems.

ByteCool™ water-cooling solutions is designed to integrate and optimize the heat exchange, flow distribution, pressure management, monitoring, and heat transfer of water-cooled server systems.

ByteCool™ system includes row-level/rack-mounted **liquid-to-liquid CDU units** and row-level **liquid-to-air CDU units**, fluid quick-connect manifolds, outdoor dry cooler units (optional), outdoor natural cooling chiller(optional), and monitoring management system (optional).



Liquid-to-Liquid CDU



Liquid-to-Air CDU



Manifolds

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ByteCool™ – Rack CDU

Product Description

ByteCool™ – Rack CDU is high density rack mount coolant distribution unit for liquid cooling system. The system is configured with high reliability pumps and power supply, together with smart controller to provide optimum thermal management for high density liquid cool servers.



Key Features

- Maximized capacity up-to 100kW with 4U compact space.
- Dual pump system for 2N redundancy and high efficiency working mode.
- Stepless pump speed control for high efficiency and long working life during part load.
- 316 stainless steel piping system with no corrosion concern.
- Quick coupling and waterless connection for easy connection.
- Dual power supply system supporting high 2N redundancy.
- Hot swappable 48VDC power supply modules for quick service.
- Dual power input design supporting TIER-4 data center uptime standard.
- Smart controller monitoring fluid flow, fluid temperature and fluid pressure.
- Anti-condensation logic and leak detection to prevent water generation.

ByteCool™ – Rack CDU

TECHINCAL SPECIFICATIONS



MODEL	BT-100-RL
Cooling Type	Liquid-Liquid
Dimension(W*H*D) – mm	440*177*910
Secondary Flow –LPM	145
Approaching Temperature – °C	13
Cooling Capacity – kW	100
Power Consumption – kW	0.5
ASHRAE Working Category	W3
Primary Inlet – °C	32
Primary Outlet – °C	42
Secondary Supply – °C	45
Secondary Return – °C	55
Secondary Fluid Filtration	50-micron
Primary Fluid Filtration	200-micron
Secondary Medium	PG25
Primary Medium	EG20
Secondary Connection - mm	1.25" Sanitary Flange(tri-clamp)
Primary Connection - mm	1.25" Sanitary Flange(tri-clamp)
Power Input ¹⁾	110-240V/1-2Ph/50-60Hz
FLA- A ¹⁾	8.2A@110V, 3.9A@230V
Monitoring Ports	Modbus-RTU, Web, Modbus-TCP, optional with SNMP

Notes:

- 1、 Customization is acceptable.
- 2、 The technical data is to be changed without prior notifications.

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ByteCool™ – Row CDU

Product Description

ByteCool™ – Row type CDU is the heart of Direct to Chip liquid cooling system, working to distribute fluid coolant for high density AI machines, and maintain the precise temperature control of high-performance computing devices.



Key Features

- High performance up to 1520kW at 7.2F(4C) low approach temperature.
- Dual pumps(N+N) and inverters for 2N high redundancy
- Primary and secondary fluid filters for easy maintenance
- All stainless-steel of fluid circuit without corrosion concerns
- Secondary loop fluid self-filling designs
- Full online monitoring of unit temperature, pressure and fluid flow
- RS485 RTU Modbus, TCP/IP SNMP, Webserver for easier monitoring
- Optional dual power supply, supporting high level data center applications

ByteCool™ – Row CDU



TECHINICAL SPECIFICATIONS

MODEL

BT-1500-CL

Cooling Type	Liquid-Liquid	Liquid-Liquid
Dimension(W*H*D) – mm	800*2200*1200	800*2200*1200
Secondary Flow –LPM	1500	1500
Approaching Temperature – °C	4	4
Cooling Capacity – kW	1520	2020
Power Consumption – kW	17.8	17.8
ASHRAE Working Category	W3	W2
Primary Inlet – °C	32	27
Primary Outlet – °C	42	37
Secondary Supply – °C	36	31
Secondary Return – °C	52	52
Secondary Fluid Filtration	50-micron	50-micron
Primary Fluid Filtration	200-micron	200-micron
Secondary Medium	PG25	PG25
Primary Medium	EG20	EG20
Secondary Connection - mm	DN100	DN100
Primary Connection - mm	DN100	DN100
Power Input ¹⁾	380-415/3Ph/50-60Hz	380-415/3Ph/50-60Hz
FLA- A ¹⁾	28.5	28.5
Power Input ²⁾	460-480/3Ph/50-60Hz	460-480/3Ph/50-60Hz
FLA- A ²⁾	23.5	23.5
ATS	Optional	Optional
Monitoring Ports	Modbus-RTU, Web, Modbus-TCP, optional with SNMP	Modbus-RTU, Web, Modbus-TCP, optional with SNMP

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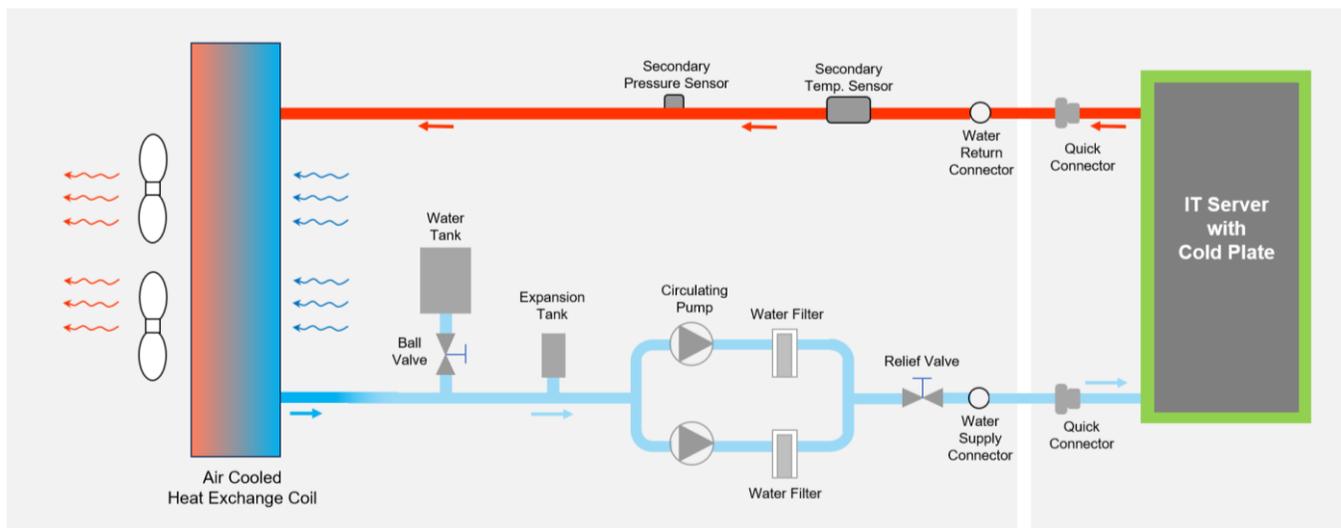
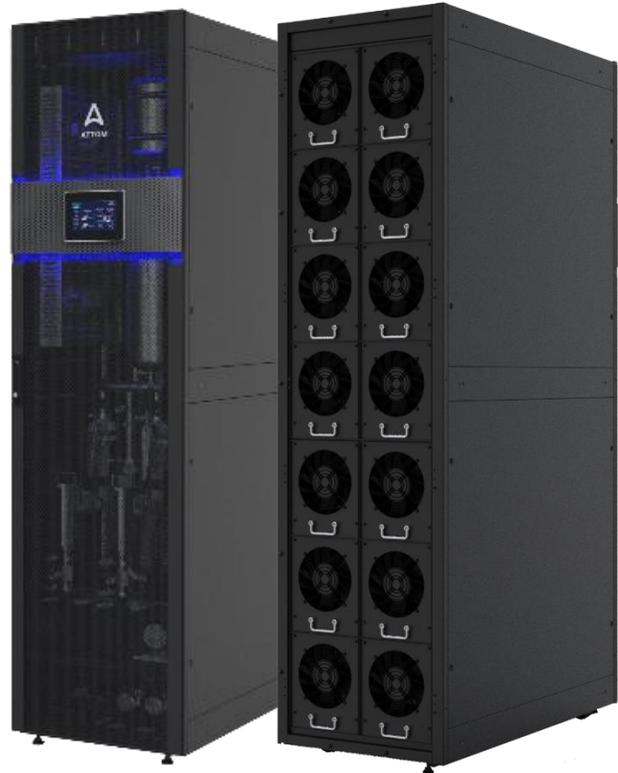


ByteCool™ – Sidecar CDU

Liquid Cooling for traditional Data Center Seamless AI Upgrade

Global data centers are facing an unprecedented crisis of high heat density. The complexity of water system infrastructure also presents a major challenge for data center operators when upgrading traditional data centers.

Sidecar is an innovative **Liquid-to-Air modular cooling solution**. Instead of rejecting heat to an external water system, Sidecar utilizes its internal, highly efficient heat exchanger to directly transfer the heat from the liquid to the air inside the rack. This heat will be easily removed by the existing data center air-cooling system (**CRAC/CRAH/Fanwall/etc.**).



ByteCool™ – Sidecar CDU

Product Description

ByteCool™ –Sidecar CDU is a liquid-to-air coolant distribution unit for liquid cooling systems. It combines high reliability pumps and EC fans, together with smart control system to create a closed liquid loop for high density liquid cool server, eliminating the need for facility water system (FWS), allows liquid-cooled equipment to operate in air-cooled environment. Support to seamless integration with direct-to-chip cooling delivers superior performance, making the solution ideal for data center retrofits and scalable growth.



Key Features

- No need primary facility water system, easy for installation and configuration.
- High performance up to 150kW cooling capacity.
- Dual pumps(N+N) and inverters for 2N high redundancy reliability.
- Hot-swappable EC fans in N+1 redundancy for easy operation.
- Flexible hose connections enable adaptable installation.
- Support top and bottom piping connections to IT equipment.
- Secondary loop fluid self-filling designs
- Full online monitoring of unit temperature, pressure and fluid flow
- RS485 RTU Modbus, TCP/IP SNMP, Webserver for easier monitoring
- Optional dual power supply, supporting high level data center applications.

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ByteCool™ – Sidecar CDU



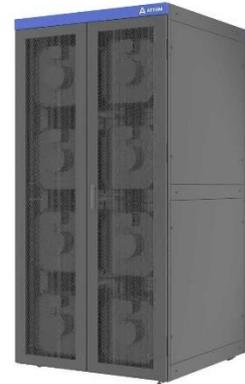
TECHINCAL SPECIFICATIONS

MODEL	BT-080-CA
Cooling Type	Liquid-Air
Dimension(W*H*D) – mm	600*2200*1200
Secondary Water Flow –LPM	120
Approaching Temperature – °C	13
Cooling Capacity – kW	80
Power Consumption – kW	5.8
ASHRAE Working Category-Liquid	W3
ASHRAE Working Category-Air	A2
Primary Air flow – m³/h	16000
Primary Inlet Air Temp.– °C	27
Secondary Fluid Filtration	50-micron
Secondary Medium	PG25
Secondary Connection - mm	DN32
Power Input	208-264/1Ph/50-60Hz
FLA- A	30
ATS	Optional
Monitoring Ports	Modbus-RTU, Web, Modbus-TCP, optional with SNMP

Notes:

- 1、 Customization is acceptable.
- 2、 The technical data is to be changed without prior notifications.

ByteCool™ – Sidecar CDU DX Type



TECHINICAL SPECIFICATIONS

MODEL	BT-150-CA
Cooling Type	Liquid-Air
Cooling Capacity –kW	150
Primary System	Air Cooled DX Dual System
Compressor Type	Inverter
Refrigerant Type	R513A
Fan Type	EC
Air Flow –m ³ /h	44000
Return Air Temp. -°C	29.5
Supply Air Temp. -°C	43.6
Secondary Loop Medium Type	25% Propylene Glycol
Secondary Water Flow –m ³ /h	13.6
Secondary Water Pressure Drop – kPa	53.6
Secondary Inlet/Outlet Water Temp. -°C	40/30
Power Input ¹⁾	480V/3Ph/50-60Hz
FLA- A ¹⁾	48.3
Power Input ²⁾	380-415V/3Ph/50-60Hz
FLA- A ²⁾	61.0
Dimension(W*H*D) – mm	1200*1200*2400
Weight –kg	626
ATS	Optional
Monitoring Ports	Modbus-RTU, Web, Modbus-TCP, optional with SNMP

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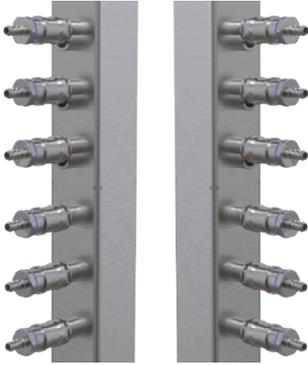
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ByteCool™ – Manifold Kits

Product Description

The manifold kits efficiently distributes coolant to multiple chips via individual lines. Its robust stainless steel construction ensures durability and compatibility with various coolants,.



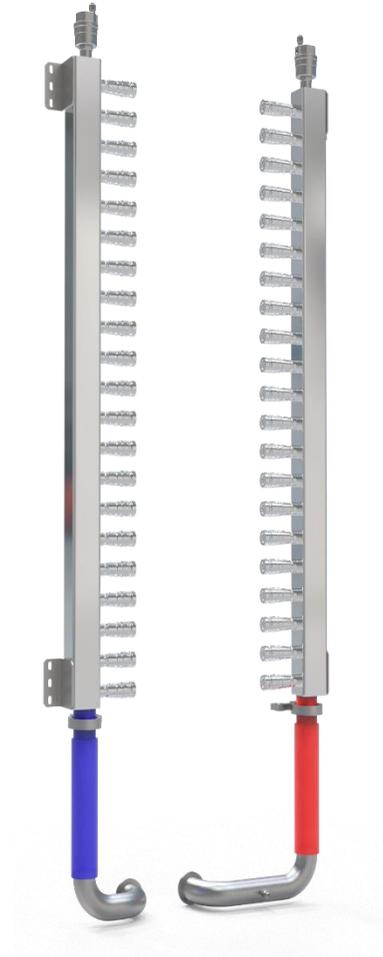
Manifold body

Build with stainless steel and self-sealed quick connectors, support to be installed vertically or horizontally.



Distribution Hose

Includes an EPDM hose with a self-sealed quick disconnect plug and internal thread connection at each end. Deliver coolant from the manifold to each cold plate on the chips.



Key Features

- Food grade robust stainless steel body for extremely reliability.
- Self-sealed quick connection technology ensure non-drip disconnect.
- Colored socket and plug for easy indication hot(red) and cold(blue).
- Standard dual configurations available 42U / 48U.
- Customization available for specific application.
- Quick connectors simplify installation and maintenance.

ByteCool™ – Manifold Kits

TECHINCAL SPECIFICATIONS

MODEL	AMF-21
Material	#316 Stainless Steel
Distribution Ports	Outlet *21 / Inlet *21
Connection Type	Self-sealed Quick Disconnect Socket
Main Hose Type	EPDM
Main Hose Size	Φ1.25" *500mm
Main Hose Chuck –mm	Φ50.5
Mount Type	Vertical
Distribution Hose Type	EPDM
Distribution Hose Size	Φ3/8" *500mm
Dimension –mm W x D x H	50*58*1054

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ChillFlow™ Free Cooling Chiller

Industry-leading air-cooled chiller units support free cooling functions in low-temperature environments, with built-in eco friendly and energy-saving components and intelligent control systems to ensure energy efficiency and reliable operation for data centers.



Product Features

- The unique natural cooling design operates in natural cooling mode at low temperatures, achieving low PUE data center design requirements.
- The efficient internal threaded pipeline provides efficient heat exchange.
- Through in-depth testing and repeated verification of system design and device configuration, the reliability of the equipment is ensured from components to systems.
- Compatible with water, water/ethylene glycol mixture, and supports reliable operation in different regions and environmental temperatures.
- Modular design allows for flexible parallel combinations, redundancy, and easy scalability for future expansion.
- Uses environmentally friendly refrigerants R134a, support stable operation at ambient temperature up to 55C with high reliability.

ChillFlow™ Free Cooling Chiller

TECHINCAL SPECIFICATIONS

MODEL	C-100GV	C-250GV	C-500GV	C-1000GV
Single/Dual System	Dual	Single	Single	Dual
Compressor Type	Inverter/Scroll	Inverter/Screw	Inverter/Screw	Inverter/Screw
Refrigerant Type	R410a	R134a	R134a	R134a
Water Temp. inlet/outlet -°C	20/15	20/15	20/15	20/15
Capacity DX Mode –kW	100	264	526	1053
Capacity FC Mode –kW	100	250	500	1000
Ambient Temp. FC Mode -°C	5	5	5	5
Coolant Type	50% Glycol	50% Glycol	50% Glycol	50% Glycol
Water Flow –m3/h	20.6	54.3	108.2	216.4
Water Pressure Drop DX Mode –kPa	95	100	85	85
Water Pressure Drop FC Mode –kPa	95	100	85	85
Water Connection	DN65	DN100	DN150	DN200
Power Type	380-415V/3P/50Hz	380-415V/3P/50Hz	380-415V/3P/50Hz	380-415V/3P/50Hz
FLA –A	56	210	375	750
Power Consumption DX Mode–kW	33.9	78	158	316
Power Consumption FC Mode–kW	4.6	10.4	20.8	41.6
Dimension	2250mm(L) x 1180mm(W) x 2290mm(H)	3300mm(L) x 2230mm(W) x 2455mm(H)	6050mm(L) x 2230mm(W) x 2455mm(H)	11550mm(L) x 2230mm(W) x 2455mm(H)
Static Weight –kg	1000	4200	7250	14500
Operation Weight –kg	1070	4400	7640	15280

Notes:

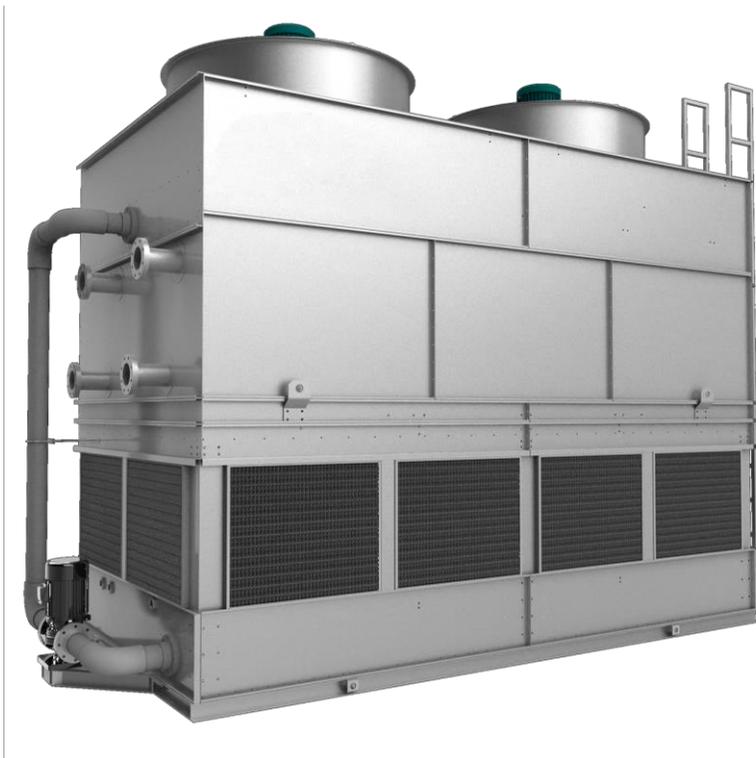
- 1、 DX mode is based upon 35C ambient..
- 2、 Customization is acceptable.
- 3、 The technical data is to be changed without prior notifications.

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KoolFlow™ Cooling Tower

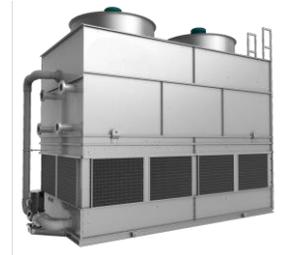
Cooling tower design with counterflow heat exchange offer a proven and cost-effective solution for rejecting heat from condenser water and industrial processes. Multilayer spray design and inverter fans provide an efficient and reliable operational environment for data centers.



Product Features

- Counterflow heat exchange design provides a greater average temperature difference, enhancing heat transfer efficiency.
- Standard with inverter fan system, stepless speed adjusting.
- Multilayer spray system with more wider water coverage, high efficiency and less water consumption.
- Top brands components ensure highly reliable and efficient.
- Compact and simple constructure, easy for maintenance.
- High corrosion stainless steel coil suitable for long time durable applications.
- Anti-freeze design ensures continuous and stable operation in low-temperature area.

KoolFlow™ Cooling Tower



TECHINICAL SPECIFICATIONS

MODEL	KSF100TN	KSF250TN	KSF500TN	KSF750TN	KSF1000TN
Capacity ¹⁾ –kW	100	250	500	750	1000
Capacity ²⁾ –kW	92	227	454	664	880
Coolant Type	25% Glycol				
Water Flow ¹⁾ –m ³ /h	9.5	23.6	47.3	70.9	94.5
Water Flow ²⁾ –m ³ /h	17.4	42.9	85.8	125.5	166.4
Water Pressure Drop ¹⁾ – kPa	13	19	19	35	34
Water Pressure Drop ²⁾ – kPa	46	54	56	118	92.7
Water Connection	DN50	DN65	DN100	DN125	DN150
Fan Type	Inverter	Inverter	Inverter	Inverter	Inverter
Fan Quantity	2	2	3	3	2
Power Type	380-415V/3P/50Hz	380-415V/3P/50Hz	380-415V/3P/50Hz	380-415V/3P/50Hz	380-415V/3P/50Hz
FLA –A	5.9	10.7	22.9	29.2	34.4
Power Consumption –kW	2.3	4.1	8.8	11.2	13.2
Length–mm	2300	3350	4800	4600	4650
Width–mm	1000	1100	1450	1450	1750
Height–mm	3180	3280	3640	3840	4310
Weight –kg	1050	1600	3100	3700	4000
Running Weight –kg	1800	2700	4200	4900	6400

Notes:

1. Cooling capacity 1 is based upon DB/35C, WB/28C ambient, fluid in/out temperature 42C/32C.
2. Cooling capacity 2 is based upon DB/35C, WB/28C ambient, fluid in/out temperature 37C/32C
2. Customization is acceptable.
3. The technical data is to be changed without prior notifications.

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One-stop Provider of Precision Cooling

Air Cool Platform



Rack Cool

- 3.9- 12kW Split type
- 3.5-5.5kW Package Type

Ceiling Cool

- 12- 36kW Split Type

Wall Cool

- 1.5- 30kW Package Type
- 7.5-12.8kW
- Split Type

Row Cool

- 5.6- 90kW Split Type
- 5.6 – 10.8kW Package Type

Room Cool

- 5.5- 120kW Split DX Type
- 24 – 260 kW CW Type
- 80-400kW Fanwall System

Liquid Cool Platform



Direct-to-Chip Liquid Cool

- 100kW CDU Rack Mount Type
- 350 – 1500kW CDU Row Mount Type, dry cooler, and water connection kits.

RDHx

- 25-30kW Split DX Type
- 30 – 65 kW CW Type

Immersion Liquid Cool

- 25kW – 100W immersion cooling system.

We believe the world is
being totally connected.
The digital connections are
creating smart intelligence
and a **better future.**

We design and deliver
green efficient data center
infrastructure products to
build foundation of digital
future.



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