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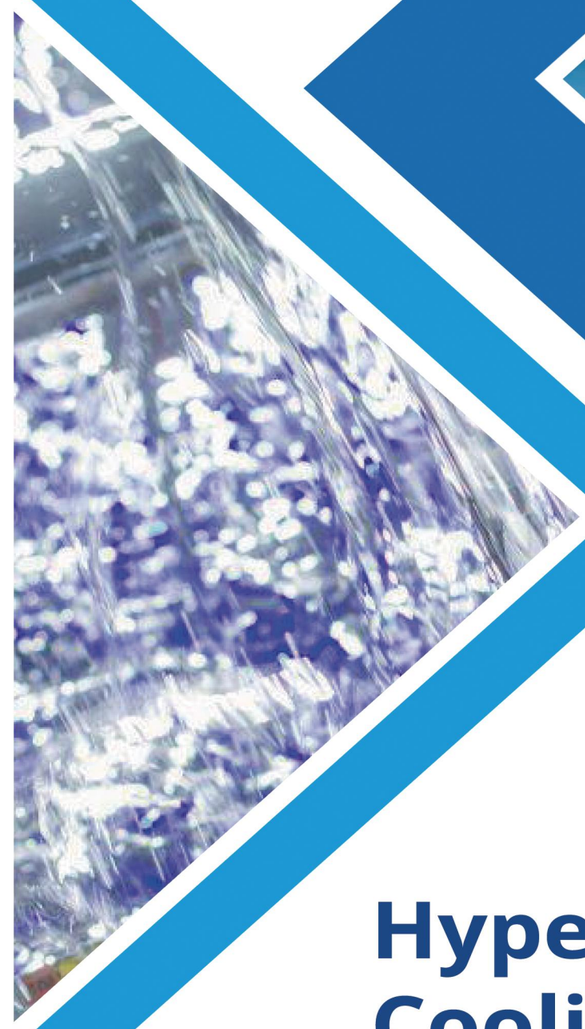
COOLNET
Innovation and Precision



Hyper-Cool Liquid Cooling Series

High Efficient And Density Precision Cooling Solution

HYPER-COOL LIQUID COOLING SERIES

High Efficient And Density Precision Cooling Solution

COMPANY PROFILE

Coolnet focuses on the R&D, production, and application of data center integrated solutions. As technical consulting, product supply, system integrator, and service provider, it is committed to serving customers in the fields of communication equipment rooms, data centers, smart construction, and energy management.

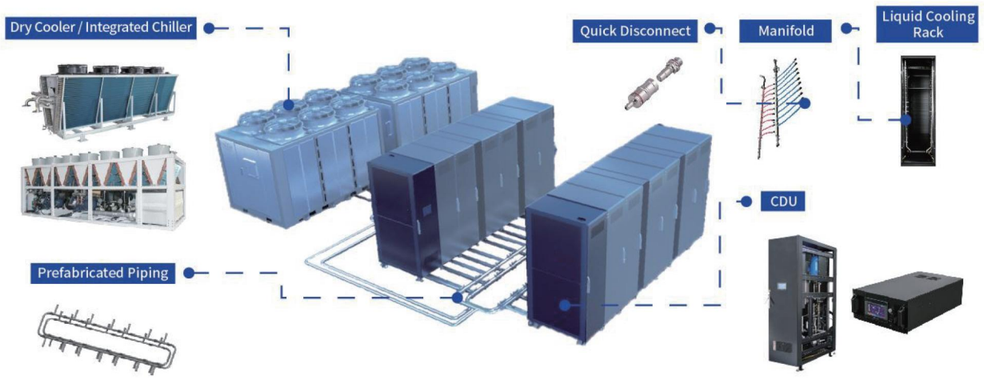
Our solutions include data center temperature, humidity, and energy-saving solutions, small and medium-sized computer room temperature control solutions, micro-module data center solutions, micro-module cabinet solutions, container, and modular data center solutions, communication outdoor cabinet temperature control and energy saving Solutions, cabinet temperature and humidity, and energy-saving solutions.

Has rich research and manufacturing experience in the field of data center equipment, with world-class laboratories, production testing equipment, and a complete line of key equipment rooms. And passed the ISO9001 quality management system certification, ISO14001 environmental management system certification, and the products have passed CE certification, CCC certification, CQC certification, CRAA quality certification, etc.

We are committed to "paying attention to customer needs and realizing customer value" and establishing a win-win cooperation pattern with customers. To become your most trustworthy, most grateful, most professional, most practical, and most reliable partner with the best vision. We will "make every effort to provide value for money products and services to make customers more competitive", and continue to explore and innovate.

High Efficient And Density Precision Cooling Solution

Coolnet focuses on the research and development of data center cooling products, offering a full serial of products from liquid-cooling Rack, CDU, manifold, immersion tanks, prefabricated piping, and primary side cooling sources to meet the cooling needs of various data centers. The integrated design of dry coolers and supplementary cooling units, with air-cooled modules and liquid-cooled modules sharing a set of cold water trays, which could reduces costs, saves space, and facilitates on-site installation.



Advantages of Coolnet's Liquid cooling Solutions

Efficient Heat Exchange

By utilizing high-performance stainless steel heat exchangers and optimized fluid dynamics design,it ensures that heat is rapidly and effectively transferred from the servers to the coolant, thereby achieving efficient heat management.

Flexible Deployment

With a complete range of products, itcan becustomized according to the specific layout and requirements of the data center. Whether it's a new construction or a renovation project, it can be easily integrated.

Energy Saving And Consumption Reduction

Liquid cooling systems offer higher energy efficiency compared to traditional air cooling systems, significantly reducing the PUE (Power Usage Effectiveness) values of data centers, aligning with the development trend of green data centers.

Reliable and Stable

Coolnet products undergo rigorous quality control and testing to ensure they can maintain long-term stable operation even in harsh environments.

Row Type Liquid Cooling CDU

Features

- Dual pump with redundancy.
- High-efficiency stainless steel plate heat exchanger with compact structure and high corrosion resistance.
- All internal piping is made of stainless steel to ensure the system is clean and pollution-free.
- Internationally renowned brand PLC controller for secure operation
- Intelligent PLC control program for real-time monitoring and control to ensure the safe and stable operation of the unit.
- Expert-levelfault diagnostics for maintenance.
- Mod bus RTU, with an optional TCP/IP configuration.
- User friendly HMI for monitoring.
- Multiple levels of passwords on the touch screen, for data security protection

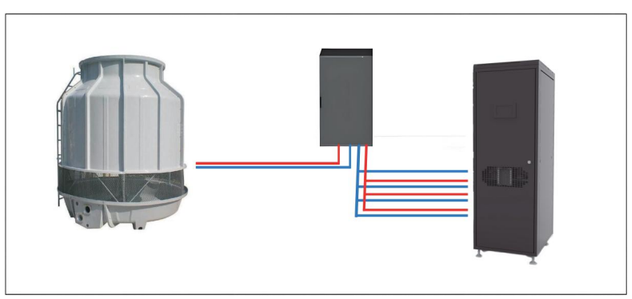
Specification

MODEL			HP040C	HP060C	HP080C	HP100C	HP120C	HP150C	HP180C	HP200C	HP250C	HP300C	HP400C
heat exchange		KW	40	60	80	100	120	150	180	200	250	300	400
First circuit	Circulating medium	/	Cooling water/antifreeze/deionized water, etc.										
	Inlet and outlet liquid temperature	℃	32/37	32/37	32/37	32/37	32/37	32/37	32/37	32/37	32/37	32/37	32/37
	Circulation flow①	m³/h	7	10.5	14	17.5	21	26.25	31.5	35	43.75	52.5	70
	Interface size	mm	DN40	DN40	DN50	DN50	DN50	DN65	DN65	DN65	DN80	DN80	DN80
	Primary side filtration accuracy	μm	200-300										
Secondary circuit	Circulating medium	/	Ethylene glycol solution/propylene glycol solution/deionized water/fluorinated liquid/oils, etc.										
	Inlet and outlet liquid temperature	℃	40/50	40/50	40/50	40/50	40/50	40/50	40/50	40/50	40/50	40/50	40/50
	Circulation flow②	m³/h	3.44	5.16	6.88	8.6	10.32	12.9	15.48	17.2	21.5	25.8	34.4
	Interface size	mm	DN40	DN40	DN50	DN50	DN50	DN65	DN65	DN65	DN80	DN80	DN80
	Secondary side filtration accuracy	μm	150-200										
Interface size		mm3	600*1200*2000									800*1200*2000	
Unit weight		KG	180	200	230	260	280	320	350	400	450	520	600
Power specifications		/	3~380V,50HZ										

Large Liquid Cooled CDU

Applicationscenario

In large data centers, place the CDU in the equipment room and connect the cold plate server cabinets through pipes. The outdoor unit is a cooling tower or dry cooler.



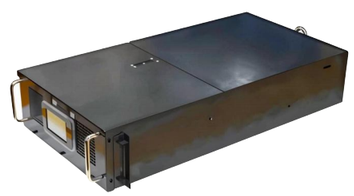
Specification

MODEL			HP500T	HP800T	HP1000T	HP2000T
heat exchange		KW	500	800	1000	2000
First circuit	Circulating medium	/	Cooling water/antifreeze/deionized water, etc.			
	Inlet and outlet liquid temperature	℃	32/37	32/37	32/37	32/37
	Circulation flow①	m³/h	86	137.6	172	344
	Interface size	mm	DN125	DN150	DN200	DN250
	Primary side filtration accuracy	μm	200-300			
Secondary circuit	Circulating medium	/	Ethylene glycol solution/propylene glycol solution/deionized water/fluorinated liquid/oils, etc.			
	Inlet and outlet liquid temperature	℃	40/50	40/50	40/50	40/50
	Circulation flow②	m³/h	43	68.8	86	172
	Interface size	mm	DN100	DN125	DN150	DN200
	Secondary side filtration accuracy	μm	150-200			
Dimensions		mm	1200*850*2000	1500*850*2000	2200*1000*2000	2500*1000*2000
Unit weight		KG	750	880	1020	1250
Power specifications		/	3~380V,50HZ			

Rack-Mounted Liquid-Cooled CDU

Features

- Dual pump redundant design allows for automatic switchover to the backup pump in case of a single pump failure.
- High-efficiency stainless steel plate heat exchanger with a compact structure and high corrosion resistance.
- Internationally renowned brand PLC controller ensures safety and reliability.
- Intelligent PLC control program for real-time monitoring and control to ensure the safe and stable operation of the unit.
- Expert-level fault diagnostics for easy maintenance and operation.
- Supports Modbus RTU, with an optionalTCP/IP configuration.
- User-friendly color human-machine interface for convenient monitoring of unit operation by management personnel.
- The touch screen can be set with multiple levels of Passwords to protect information security.



Specification

MODEL			HP005R	HP010R	HP020R	HP040R
heat exchange		KW	5	10	20	40
First circuit	Circulating medium	/	Cooling water/antifreeze/deionized water, etc.			
	Inlet and outlet liquid temperature	℃	32/37	32/37	32/37	32/37
	Circulation flow①	m³/h	0.88	1.75	3.5	7
	Interface size	mm	DN25	DN25	DN32	DN32
	Primary side filtration accuracy	μm	200-300			
Secondary circuit	Circulating medium	/	Ethylene glycol solution/propylene glycol solution/deionized water/fluorinated liquid/oils, etc.			
	Inlet and outlet liquid temperature	℃	40/50	40/50	40/50	40/50
	Circulation flow②	m³/h	0.43	0.86	1.72	3.44
	Interface size	mm	DN25	DN25	DN32	DN32
	Secondary side filtration accuracy	μm	150-200			
Dimensions		mm	450*850*220（5U）		450*850*350（8U）	
Unit weight		KG	40	48	95	120
Power specifications		/	1~220V,50HZ			

Immersion Liquid Cooling Solution

Features

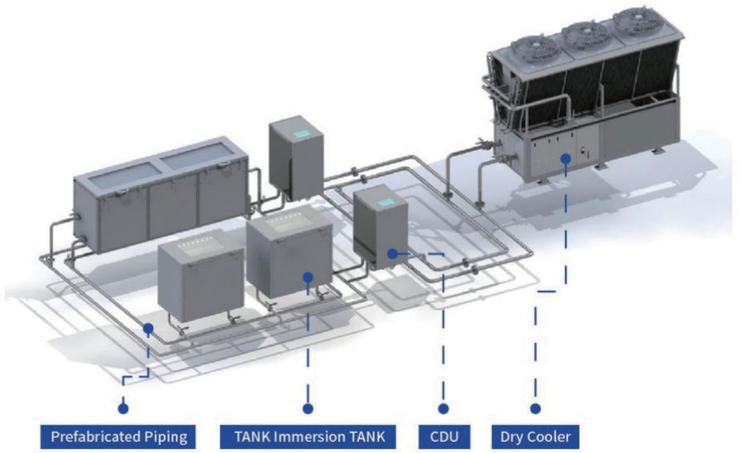
- Ultra-quiet, PUE close to 1.0, high power density, lower TCO and other advantages of a new energy-saving liquid-cooled data center
- Rapid deployment, good flexibility, not affected by climate and environment, strong regional adaptability
- Convenient maintenance, can achieve liquid offline/online operation; making maintenance operations basically close to air-cooled maintenance.

Applicationscenario

Small and medium-sized data centers, communication base stations, etc. Place the server or BBU in the liquid cooling cabinet and connect it to the outdoor unit through pipes for heat dissipation.

▲ Liquid Cooling Tank Cabinet

▲Liquid Cooling CDU Cabinet



Features

- Customizable number of U positions.
- Side or bottom pipe connections with top access door.
- Compatible with synthetic oils/fluorinated liquids.
- All stainless steel materials in contact with the liquid.
- Air-liquid TANK does not require an external cold source, using air cooling for heat dissipation.
- Universal server and BBU(Building Base Unit) installation format.

Specification

MODEL		HPL-04	HPL-06	HPL-10	HPL-10	HPL-20	HPL-40	HPL-60
Heat exchange	KW	4	6	10	10	20	40	60
Available U slots	U	13			21			
Interface size	mm	DN25	DN25	DN32	DN32	DN40	DN50	DN50
Cooling medium	/	Mineral oil/silicone oil/synthetic oil, etc.						
Inlet and outlet liquid temperature	℃	40/50	40/50	40/50	40/50	40/50	40/50	40/50
Unit dimensions	mm3	1200*800*1250			1500*800*1250			
Unit weight	KG	245			350			
Power specifications	/	1~220V,50HZ			3~380V,50HZ			
MODEL		**DC-004**	**DC-006**	**DC-010**	**DC-010**	**DC-020**	**DC-040**	**DC-060**
Heat exchange	KW	4	6	10	10	20	40	60
Unit dimensions	mm	1280*870*1270			1250*1150*2000		1500*1150*2000	
Unit weight	KG	105	150	180	235	325	380	450
Power specifications	/	1~220V,50HZ			3~380V,50HZ			

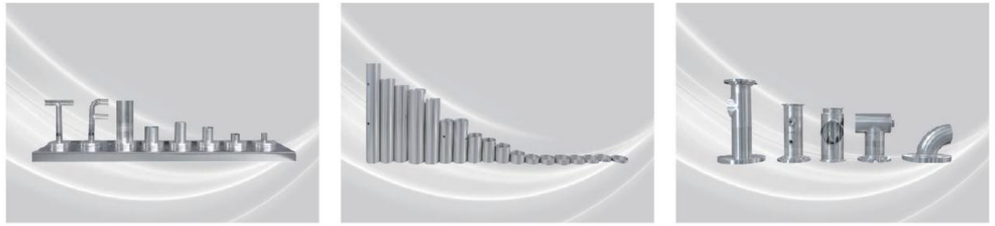
Prefabricated Piping

3D Modeling

Factory Prefabrication

Features

- Tonefei possesses advanced fully automatic stainless steel welding equipment, laser cutting, automatic punching machines, and other precision processing equipment, pickling and passivation equipment, and laser cleaning equipment, ensuring the cleanliness and aesthetic appeal of stainless steel products.
- Various testing methods such as pressure testing, penetrant testing, and helium testing are employed to ensure product sealing; factory prefabrication allows for rapid on-site assembly, reducing construction workload.
- It can meet customized needs for various scenarios



Liquid Cooling Distribution Manifold

- Made of 304 stainless steel material.
- Branch connectors all use drip-free quick connectors.
- Reasonably designed, with a flow unevenness of less than 10% in each branch circuit.

Dry Cooler

Features

- The heat exchanger tubes are made of SUS304 material, which is high strength and corrosion resistant, suitable for various heat transfer media.
- All materials in contact with the fluid are SUS304, ensuring safety and reliability.
- The heat exchanger fins are made of anti-corrosion coated aluminum fins, which offer good heat transfer and are corrosion resistant.
- EC axial flow fans with 10% to 100% stepless speed control for precise temperature regulation.
- Optionalspray module available
- OptionalPLCcontrolsystem available.
- Customizable according to customer requirements.

Specification

Model			DHWA65-32V	DHWA200-50V	DHWA600-100w	DHWA1200-125W
Heat Transfer Capacity Approach Temperature at 10℃ Inlet/Outlet Liquid Temperature Difference at 10℃	Water	kw	68	204	622	1244
	30%Ethylene Glycol		66	198	592	1184
Heat Transfer Capacity Approach Temperature at 5℃Inlet/Outlet Liquid Tem perature Difference at 10℃	Water	kw	45	135	394	788
	30%Ethylene Glycol		43	130	364	728
Flow Rate		m^3/h	5.9	17.7	53.6	107.2
Pressure Drop		kPa	60	60	70	80
Airflow		m^3/h	20000	60000	200000	400000
Fan Quantity		PCS	1	3	2*4	2*8
Rated Power		kW	2	6	17.6	35.2
Inlet/Outlet Pipe Diameter		DN	DN32	DN50	DN100	DN125
Power Supply System		/	380V-480V/3Ph/50Hz 380V-480V/3Ph/60Hz			
Dimensions	Length	mm (inch)	1500(59)	3600(142)	5000(197)	9500(374)
	Width	mm (inch)	1200(47)	1200(47)	2500(98)	2500(98)
	Height	mm (inch)	1800(71)	1800(71)	2500(98)	2500(98)

Mini Fan Wall

Introduction

- Mini Fan-Wall integrated the heat exchangers and fans, available in a variety of forms.
- Customized design to meet the requirements.
- Modular produce, rapid on-site assembly.
- The depth no more than 200mm, uses DC small fans, which are compact and easy to maintain.

Features

- Mini Fan-Wall easy to install and deploy.
- Adjustable fan speed and water valve opening according to demand, allowing for dynamic cooling capacity adjustment.
- Intelligent control program for real-time monitoring and control to ensure the safe and stable operation of the unit.
- Expert-level fault diagnostics for easy maintenance and operation.
- Supports Modbus RTU, with an optional TCP/IP configuration.

Scenarios

- Medium/Large Data Centers, High-density computer rooms/Cold plate liquid-cooling computer rooms.

Specification

Model			HPW800W
Cooling Capacity		kW	80
Temperature		℃(°F)	20/28(68/82.4)
Inlet/Return Air Temperature		℃(°F)	20/38(75/100.4)
Airflow		m³/h	20000
Rated Power		kw	3.2
Maximum Allowable Power		kw	4.5
Static Pressure of Air Delivery		Pa	30
Pipe Connections		DN	DN 40
Fan Hot Swapping		/	Support
Power Supply System		/	380V-415V/3Ph/50Hz 280V-240V/1Ph/60Hz
Dimensions	Width	mm(inch)	1200(47)
	Depth	mm(inch)	350(14)
	Heigh	mm(inch)	2000/2200(78/87)

Chilled Water Rear Door Heat EXchanger

Introduction

- Features an integrated design of heat exchangers and fans for easyinstallation and deployment
- Adjustable fan speed and water valve opening according to demand, allowing for dynamic cooling capacity adjustment.
- Intelligent control program for real-time monitoring and control to ensure the safe and stable operation of the unit.
- Expert-level fault diagnostics for easy maintenance and operation.
- Supports Modbus RTU, with an optional TCP/IP configuration.

Scenarios

- Medium to large data centers/High-density server rooms/Cold plate liquid-cooled server rooms.

Specification

Model			HPX250D	HPX500D
Cooling Capacity		kW	25	50
Inlet/Outlet Liquid Temperature		℃(°F)	20/28(68/82.4)	
Inlet/Return Air Temperature		℃(°F)	24/38(75.2/100.4)	
Airflow		m³/h	6000	12000
Rated Power		kw	1.1	2.2
Maximum Allowable Power		kw	1.5	2.5
Static Pressure of Air Delivery		Pa	30	
Pipe Connections		DN	DN32	
Fan Hot Swapping		/	Support	
Power Supply System		/	280V-240V/1Ph/60Hz	
Dimensions	Width	mm(inch)	600(24)	
	Depth	mm(inch)	350(13)	
	Heigh	mm(inch)	2000/2200(79/87)	2000(87)

Integrated Chiller

Introduction

- The temperature difference between the water outlet of the dry cooler and the ambient temperature can be around 7~8°C.
- When the water outlet temperature of the dry cooler is 40℃ and the ambient temperature is below 32°C only the dry cooler operates, making full use of the natural cold source.
- When the temperature exceeds 32℃ during high-temperature periods in the summer, the high evaporation temperature chilled water unit is activated to supplement the cooling capacity.

Cost Reduction And Efficiency Increase

The integration of dry coolers with supplementary cooling units into a single cold source can adapt to various extreme weather conditions, ensuring the outlet water temperature.

Flexible Deployment

The integrated cold station can be invested in phases allowing for flexible capacity expansion.

Ultimate Water Saving

It does not consume water resources at all, avoiding the problems of freezing and scaling in spray systems.

High Energy Efficiency

The supplementary cooling units use a high evaporation temperature system, which results in a higher energy efficiency ratio.

Integrated Chiller

ProductFeatures

- Integrated pump circulation module for the whole machine, facilitating easy installation and deployment
- Well-known brand compressors for stability and reliability.
- Intelligent control programs for real-time monitoring and control to ensure the safe and stable operation of the unit.
- Expert-level fault diagnostics for easy maintenance and operation.
- Supports Modbus RTU, with optional TCP/IP configuration.
- Easy-to-operate color human-machine interface for convenient management personnel to timely understand the operation of the unit.
- The touch screen can be set with multiple levels of passwords to protect information security.

Specification

Model			HPC200	HPC600
Cooling Capacity		kW	200	600
Rated Suction Temperature			25(77)	
Ambient inlet Air Temperature			35(95)	
Suction Flow Rate		m³/h	42	12000
Suction Pressure		bar	4.8	2.2
Maximum Suction Pressure		bar	81.5	2.5
Rated Power		kW	30	
Pipe Connection		DN	DN80	DN100
Suction Temperature Range Setting			7-3(44.6-95)	
Power Supply System		/	380V-415V/3Ph/50Hz 380V-415V/3Ph/60Hz 460V-480V/3Ph/60Hz	
Dimensions	Length	mm(inch)	4050(159)	8000(315)
	Width	mm(inch)	1900(75)	2500(98)
	Height	mm(inch)	2750(108)	2600(102)