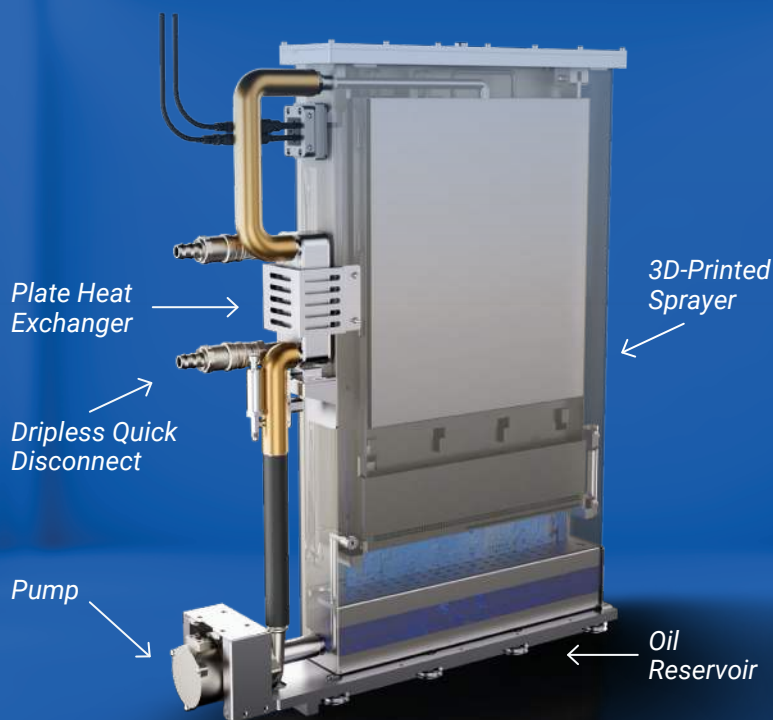


LiquidRack™

Server-Level Liquid Cooling

LiquidRack is an advanced liquid cooling solution engineered for a wide range of digital infrastructures, including cloud services, cryptocurrency mining, and telecommunications facilities. By moving beyond traditional immersion cooling and adopting innovative spray-based technology for CPU/GPU cooling, LiquidRack significantly increases heat transfer efficiency while minimizing dielectric fluid usage, and its ability to run at higher liquid temperatures without compromising CPU junction temperature makes year-round free-cooling possible, eliminating the need for mechanical chilling and optimizing energy efficiency.



High Cooling Capacity

Rack-Level Liquid Cooling Design
Eliminates the Need for a CDU



Low Fluid Charge

80% Lower Dielectric Fluid Charge
Compared to Immersion Cooling



Server-Based Spray Cooling

Higher Fluid Temps Enable Free
Cooling & Less Power Input



Modular Unit & Components

Flexible Hardware Configurations
within a Reduced Overall Footprint

LiquidRack™

Technical Specifications



Specification	LiquidRack		
Dimensions (W x D x H)	850 mm x 1070 mm x 2445 mm 33 1/2" x 42 1/8" x 96 5/16" 850 mm x 1130 mm x 2445 mm ⁽³⁾ 33 1/2" x 44 5/16" x 96 5/16" ⁽³⁾		
Power Supply	460V/3PH/60HZ		
Max Power	3 kW - 4kW ⁽⁵⁾		
Cassettes per Rack	10		
Server Space	20U		
Maximum Cooling Capacity	175 kW		
Rack Floor Loading (dry weight)	700 kg/m ² 143.4 lbs./ft ²		
PDUs	1 + 1		
CASSETTE SPECIFICATIONS			
Dimensions (W x D x H)	110 x 535 x 940 mm 4 5/16 x 21 1/16 x 37 1/16 in.		
Dry Weight	22 kg. / 48.5 lbs.		
Server Cassette Space	Options: 1U, 2U, 3U, 4U Base: 2U		
Coolant Type	Dielectric Oil		
Coolant Volume	7 L / 1.85 gal.		
Mechanical PUE	~1.03		
Configurable Components (per cassette)	(1) 3D Printed Sprayer		(1) Plate Heat Exchanger
	(1) Pump		(2) Dripless Quick Connectors
WATER SPECIFICATIONS			
Final Heat Rejection Options	Chilled Water Loop	Adiabatic/Evaporative Cooling Tower	Dry Cooler
Cooling Capacity	14 - 17.5 kW	8.3 - 14 kW	5 - 8.3 kW
Cooling Capacity per Rack	175 kW ⁽¹⁾	63 kW ⁽²⁾	83 kW ⁽³⁾
Inlet Water Capacity	15°C/59°F to 30°C/86°F	30°C/86°F to 50°C/122°F	50°C/122°F to 60°C/140°F
Recirculating Water Flow Rate	0.43 - 1.51 m ³ /h 1.89 - 6.65 gpm		
Water Pipe Connections	R2" female thread or 2" hose barb		
Heat Reuse Options	Hot Water or Heat-Driven Chiller		
PLATE HEAT EXCHANGER			
Max Particulate Size	0.8 mm 1/32" diameter absolute		
Flow at Rating	10.3 m ³ /hr 45.3 gpm		
CONTROL & MONITORING			
Interface	Touch Screen		
Protocols	Modbus, BACnet		
Sensors	Water Temperature		Coolant Temperature
	Pump Status		Coolant Pressure
	Coolant Flow Rate		Coolant Liquid Level
Alarm	Local, Remote		

Note: (1) up to 175 kW with 15°C/59°F chilled water; (2) up to 63 kW with adiabatic cooling tower and 50°C/122°F ambient temperature; (3) up to 83 kW with dry cooler and 45°C/113°F ambient temperature; (4) with optional front and rear doors; (5) dependent upon environment