

# CritiCool-X™

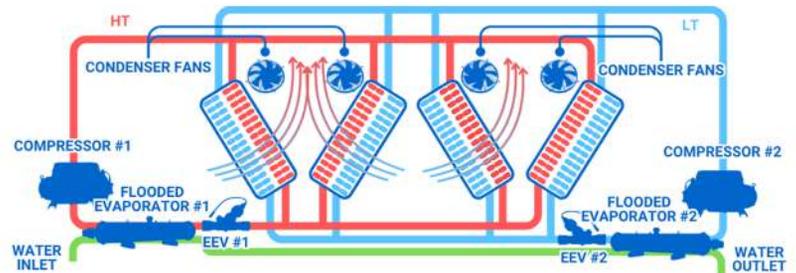
## Magnetic-Bearing Centrifugal Chiller

The CritiCool-X oil-free chiller delivers 99% uptime and unmatched energy performance for today's high-performance data centers. Purpose-built for hybrid air and liquid cooling, it's engineered to adapt seamlessly to future liquid-only operation, intelligently managing temperature and  $\Delta T$  (up to 16 °C, ideally 20 / 36 °C) to maintain optimal efficiency under any load.



The CritiCool-X's magnetic-bearing compressors use 30% less energy, while VFD pumps enable seamless free-cooling for up to 90% savings. With patented Series Counterflow technology, it delivers higher efficiency, zero water use, and reliable operation, supporting both serial and parallel loops for fully integrated air and liquid cooling performance.

### Patented Series Counterflow Technology



**Low Water Flow**  
reducing pump energy consumption by up to 50%



**Compressor Performance**  
optimized efficiency driven by patented series Counterflow technology



**More Free Cooling**  
delivering 20-70% energy savings depending on climate

Specification	CCX.AF1032EVPB1C		CCX.AF05M1EVPB1C	
Refrigerant	R515B		R515B	
Compressor Type	Magnetic Levitation Centrifugal		Magnetic Levitation Centrifugal	
Compressor Quantity	2		1	
Power Supply	460V-3Ph-60Hz		460V-3Ph-60Hz	
<b>Mechanical Cooling</b>	<b>Condition 1<sup>(1)</sup></b>	<b>Condition 2<sup>(2)</sup></b>	<b>Condition 1<sup>(1)</sup></b>	<b>Condition 2<sup>(2)</sup></b>
Cooling Capacity (ton)	284.3	284.3	142.2	142.2
Power Input (kW)	198	214	118	120
COP (kW/ton)	0.6964	0.7526	0.8300	0.8441
<b>Electrical Data</b>				
FLA(A)	353		223	
MCA(A)	442		279	
MOP(A)	480		320	
<b>Free Cooling</b>				
Ambient Temp (°F)	41	37	41	37
Free Cooling Capacity (ton)	284.3	284.3	142.2	142.2
Water Flow Rate (gpm)	249	398	124	199
<b>Evaporator</b>				
Evaporator Type	Flooded Type		Flooded Type	
Evaporator Quantity	2		1	
Evaporator Pressure Drop (psid)	9.5	22.5	8.8	20.7
<b>Condenser</b>				
Airflow (CFM)	147,145		73,573	
Condenser Type	V-type Microchannel		V-type Microchannel	
Condenser Quantity	12		6	
<b>Condenser Fan</b>				
Fan Type	EC Axial		EC Axial	
Fan Quantity	12		6	
<b>Water Pump</b>				
Water Pump Type	Variable Frequency Centrifugal		Variable Frequency Centrifugal	
Pump Quantity	1		1	
<b>Dimensions and Weight</b>				
Water Pipe Diameter (inch)	5		4	
Unit Dimensions (inch)	457x90x99		250x90x99	
Shipping Weight (lbs.) <sup>(3)</sup>	27,476		14,832	
Operating Weight (lbs.)	29,666		15,937	
<b>Noise</b>				
Full Sound Power Level dB(A)	97		94	

(1) Condition 1: Inlet/Outlet Water Temperature 96/68°F, Ambient Temperature 95°F (2) Condition 2: Inlet/Outlet Water Temperature 86/68°F, Ambient Temperature 95°F (3) Include Refrigerant