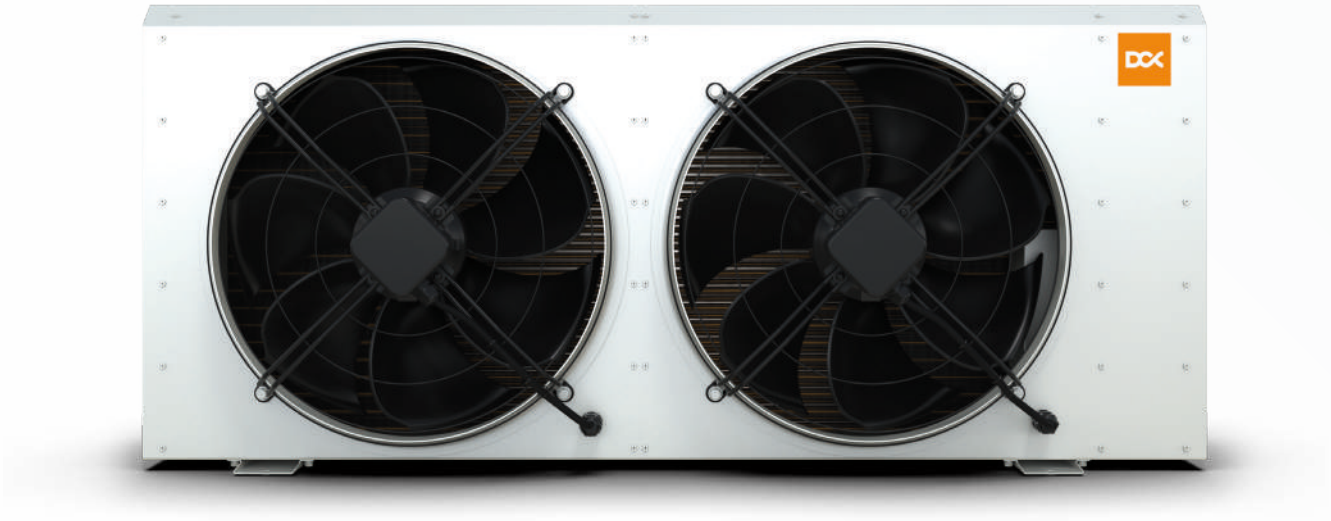
DCX ICP40

Liquid Cooling Optimized Dry Cooler



Overview

The ICP40 is a compact and powerful dry cooler specifically designed for single immersion cooling applications. This all-in-one solution combines a silent and efficient cooling unit with an integrated pump and adaptive fan control to deliver precise and reliable temperature regulation for your immersion environment. Over 40kW of heat transfer capacity at 35°C ambient temperature (45kW at 25°C). Integrated pump eliminates the need for additional equipment, simplifying installation and saving space. Adaptive fan control automatically adjusts fan speed based on cooling demands, optimizing energy consumption and minimizing noise levels. Standard options offer quiet operation (58-62dB), while high-performance fans provide increased cooling capacity. Durable and compact design with dimensions of 140 x 70 x 40 cm, easily integrates into various environments. The ICP40 is the perfect solution for data centers, mining operations, high-performance computing facilities and any application requiring precise and efficient cooling for single immersion enclosures

Tech spec

Specifications	
Application	Single Immersion Mining Enclosure (8xS19 | 12 x M30/M50 Whatsminer)
Heat Transfer 35°C	40 KW
Heat Transfer 25°C	45 kW
Dimensions	1400 | 460 | 715 mm
Fans & Noise	2x 500 mm / 58-62dB(A)
Power (max)	Fan 2x 380W 50hz (1.7A) 480W 60hz (2.1A) | 1x Pump 185W (0.8A)
Power Standard	230-240V/1Ph/50/60 Hz
Pump system & Fittings	160 lpm / 42 GPM / 1" DN25 Smart Pump
Control System	Adaptive Fan Controller with temperature sensor
Fluid In / Out	60 / 40°C
Weight (dry)	80 kg

Why Choose DCX ICP40 Dry Cooler?

Capacity

Delivers over **40kW** of heat transfer, exceeding **45kW** in cooler environments.

Performance

System combines a **silent** cooling unit and **adaptive** fan control.

Sustainability

Eliminating water usage and reducing environmental footprint.

Energy Efficiency

Intelligent power management (**1.5 kW**) and automatic fan speed optimization.

HEATING COIL - Standart_heat 25T 4NR 1310A 2,1P 5NC		
Geometry	Standard heat	
Nr of Tubes per Row	25	
Nr of Rows	4	
Coil Length	1310 mm	
Fin Pitch	2,10 mm	
Nr of Circuits	5	

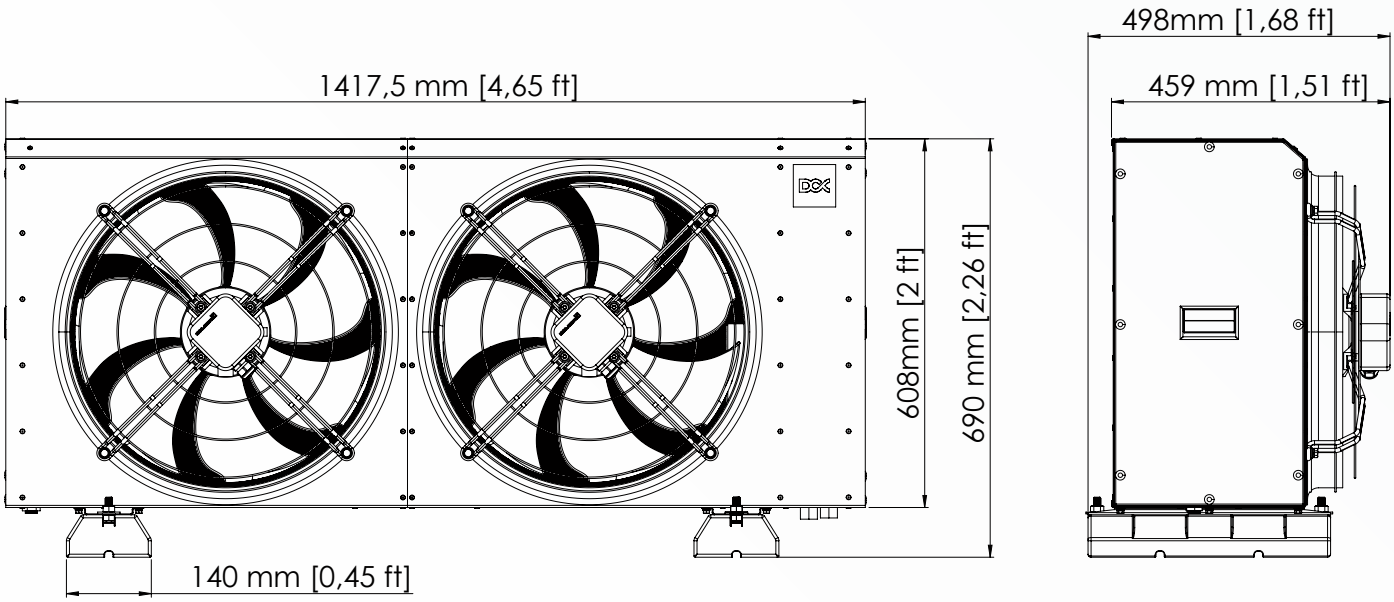
Air Side		
Atmospheric Pressure / Altitude	1,01 / 0,00 bar A / m	
Volumetric Air Flow	7500,0 m³/h	
Mass Air Flow	8518 kg/h	
Face Velocity on the Coil	2,54 m/s	
Inlet Air Temperature	35,0 °C	
Inlet Air Relative Humidity	40,00 %	
Outlet Air Temperature Requested / Obtained	0,0 / 51,4 °C	
Outlet Air Relative Humidity Requested / Obtained	0 / 17 °C	
Pressure Drop	57 Pa	

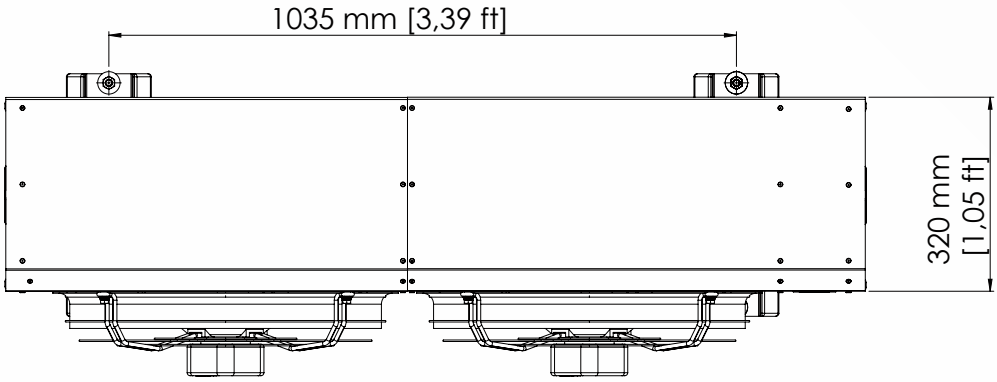
Ventilators		
Size	500 mm	
Quantity	2 pcs	
Speed	870 RPM	
Power	290 W	
Sound power	72 dB(A)	
Technology	AC	

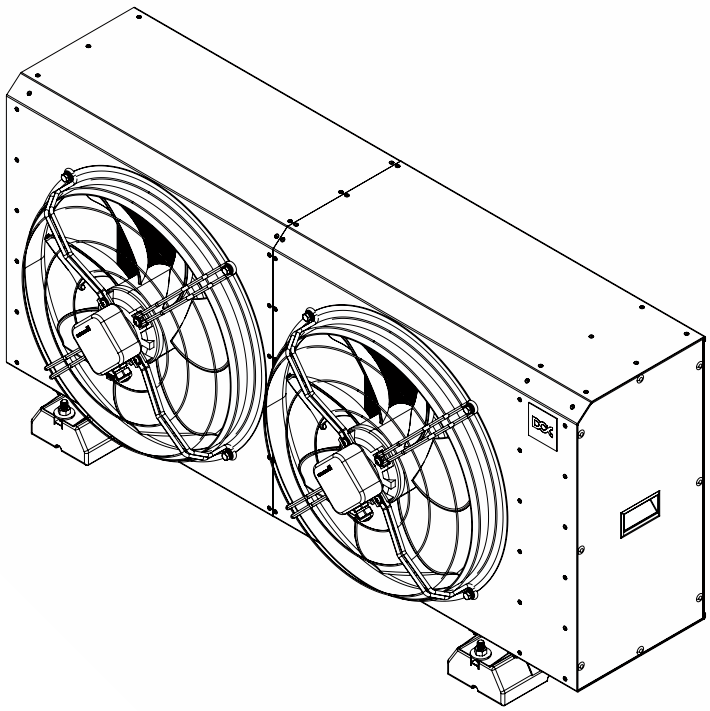
Fluid Side		
Fluid	WATER (1 bar A)	
Volumetric Fluid Flow	1,6 m³/h	
Mass Fluid Flow	1620 kg/h	
Fluid Velocity	1,44 m/s	
Inlet Fluid Temperature	65,0 °C	
Outlet Fluid Temperature	43,8 °C	
Pressure Drop	66,72 kPa	
Tubes Material	Copper	
Manifolds Vertical	In: 1" [Dy25]	Out: 1" [Dy25]

Technical drawings

Of ICP40 Dry Cooler







Heat reuse opportunities

Of ICP40 Dry Cooler

This deployment demonstrates the DCX ICP40 Dry Cooler operating in a **hybrid heat rejection and heat reuse setup**. Here, the cooler is connected to a single immersion enclosure via insulated piping, forming a closed-loop circuit with an integrated pump circulating the heated dielectric fluid.

What sets this installation apart is its **smart heat reuse strategy**: instead of rejecting all heat to the ambient air, a portion of the thermal energy is redirected to **heat a swimming pool**. In moderate climates or seasonal installations, this approach not only **cools the hardware effectively** but also **offsets energy costs** by repurposing the waste heat. The ICP40's compact design and built-in controls make it easy to configure the flow path—enabling excess heat from the miners to serve a secondary, beneficial purpose.