

Computer Room Air Conditioning

DataRow CHW Cooler
Up to 40kW
380 - 415Vac, 3PH, 50Hz

Next generation Computer Room Air Conditioning for Mission Critical Facilities Solution



INTRODUCTION

The DataRow CHW Cooler is an efficient in-row IT cooling solution for data center applications. It is extremely efficient offering the latest fan technology coupled with sophisticated controls logic designed to optimize operation. Providing industry-leading cooling for its footprint, the DataRow CHW cooler offers the ultimate in scalable solutions for the modern data center. The DataRow CHW Cooler is designed to fit in between industry standard server racks and offers 'plug and play' connectivity.

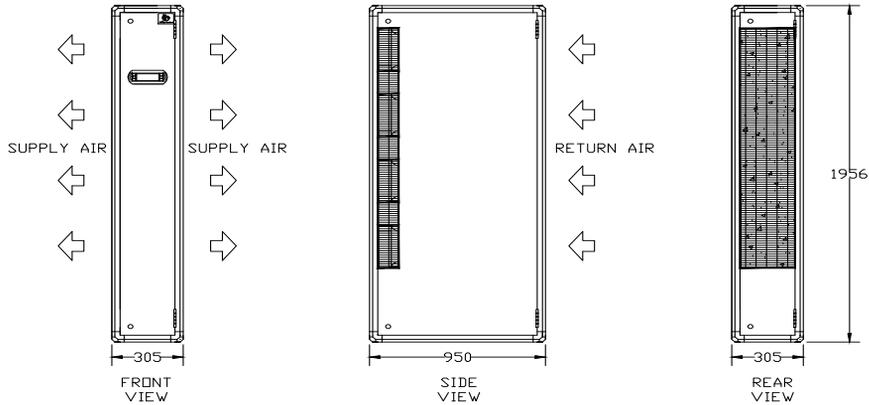
TYPICAL APPLICATIONS

- Data Center
- Server Room
- Computer Room

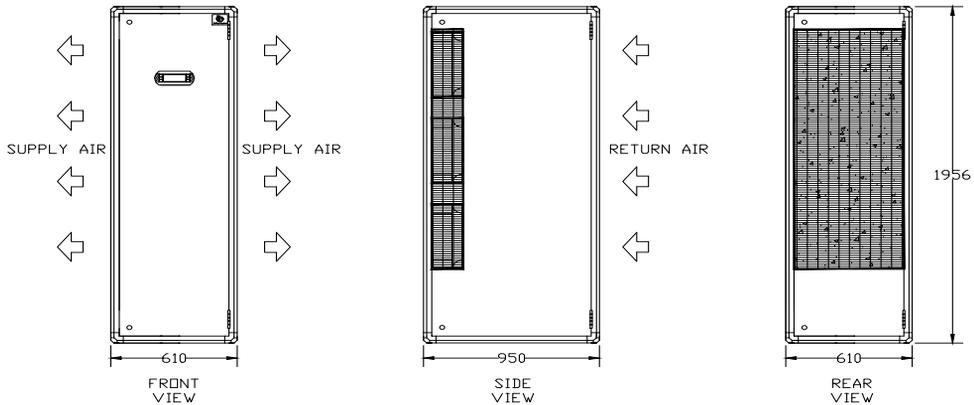
Precision Air Conditioning

UNIT DIMENSION

SERIES 300



SERIES 600

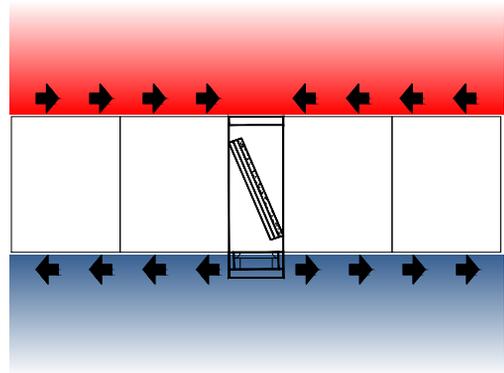


IMPROVED EFFICIENCY IN THE AISLE ORIENTATION

The DataRow CHW Cooler sits within a row of server cabinets. The DataRow CHW Cooler can be integrated into a traditional hot or cold aisle system, but when it is integrated with aisle containment, the DataRow CHW Cooler's performance is significantly enhanced.

In a hot aisle containment for example, the DataRow CHW Cooler's fans draw in hot air rejected by the servers. This hot air passes over the DataRow CHW Cooler heat exchangers and is rejected as cold air to be supplied directly to the server racks as shown in the diagram on the right.

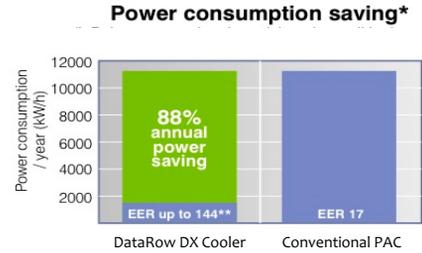
Due to the minimum distance that the hot air has to travel, the risk of cold air mixing with rejected hot air is greatly decreased. This in turn reduces the need for very low supply air temperatures, enabling the data centre to operate at higher temperature, which improves its efficiency.



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EC BACKWARD CURVED FAN – UP TO 70% MORE EFFICIENT THAN NORMAL AC FAN AT PART LOAD

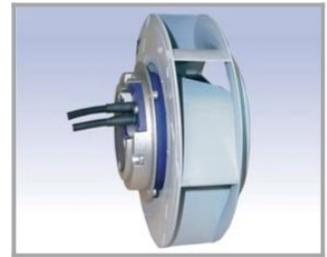
Since most servers operate at less than 100% capacity, energy costs can be significantly reduced when cooling equipment operates at part load. Since the DataRow DX Cooler has been engineered with very low air flow resistance, it can accommodate the latest EC fan technology which offers greatly enhanced fan efficiency particularly at part load.



EC BACKWARD CURVED FAN – HOT SWAPPABLE FAN

Each of the DataRow CHW Cooler's EC fans are 'hot swappable' which means that a fan assembly can be removed from the unit whilst it is running and replaced with another fan assembly.

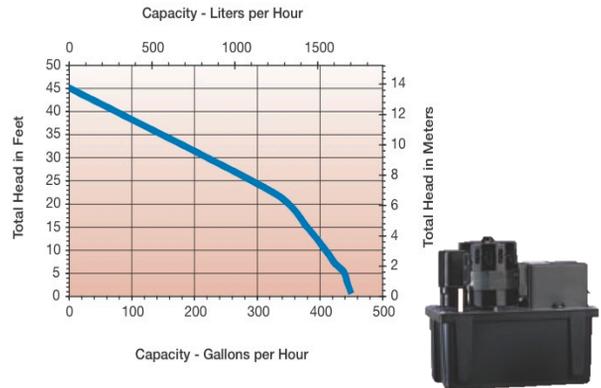
When a fan assembly is unbolted from the DataRow CHW Cooler, the power is cut and fan simply removed.



CONDENSATE REMOVAL PUMP

Water is the 2nd most common cause of Data Center failure after electrical, and CRAC is the source of water present in Data Center.

Small – Medium sized server room may not have the raised flooring system, that provide the source of gravity flow for the condensate water, as such, a reliable condensate water pump a MUST to ensure the server room's critical uptime.



MICROPROCESSOR CONTROLLER

CRITICAL CONTROL precision air conditioning is equipped with an on board controller which has been specially designed to manage the performance of the units in the mission critical environment. The intelligent controller keeps control of the fundamental functions of the air conditioning: cooling, heating, de-humidification, humidification, etc.

DISPLAY TERMINAL

The LCD display terminal will perform high quality screen and advanced functions for a superior appearance. The display terminal not only monitors temperature, humidity, but also provides components run time, alarm history, and automatics self test upon start up.

TEMPERATURE/RELATIVE HUMIDITY SENSOR

These are installed in combination with the controllers that feature the serial connection.



Precision Air Conditioning

TECHNICAL SPECIFICATION

MODEL	Series	300		600	
		Total	Sensible	Total	Sensible
Cooling Capacity					
35.0CDB/25%RH	kW	20.5	20.5	41.0	41.5
29.5CDB/30%RH	kW	19	19	35.6	5.6
26.7CDB/50%RH	kW	18	18	35	35
24.0CDB/50%RH	kW	17	17	34	26.7
Physical					
Enclosure (WxDxH)	mm	305x950x1956		610x950x1956	
Weight	kg	270		480	
Fan					
Number of fans	qty	4		3	
Air flow	m ³ /h	4590		6120	
Filter					
Number	qty	3		3	
Dimensions (each)	mm	254x508		508x508	
Depth (each)	mm	25		25	
Noise Level					
Noise data	dB(A)	82.8		82.8	
Electrical Data					
kW / 230/1/50		1.5		1.8	

- The technical specification may change or upgrade without prior notice
- Chilled water in/out 44/54F
- Sound pressure level at 1.8m in free field
- Capacity can be tested with additional cost in the factory test chamber

AUTHORIZED RESELLER :

CRITICAL M & E

ENGINEERING

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