



**Air<sub>2</sub>O** is the next generation hybrid air conditioning system, utilizing a unique combination of indirect and direct evaporative cooling to achieve **70% energy savings.**



# SEMI-HYBRID CRS



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## System Operation

**Air<sub>2</sub>O Semi Hybrid IDEC technology** utilizes a two stage evaporative cooling solution, in conjunction with either a chilled water coil for additional cooling or hot water coil for heating. In the first stage, outdoor air is passed through the Heat Rejector section of the unit, which houses an evaporative cooling system optimized to cool water.

This cooled water is then transferred to a high efficiency heat exchanger within the supply section of the unit, over which the primary supply air is passed, delivering the first stage of cooling with no added moisture -Indirect Evaporative Cooling. The air is further cooled as it passes the second cooling stage - Direct Evaporative Cooling, or the chilled water coil.

**Air<sub>2</sub>O's** equally unique intelligent control system, **ACCESS**, automatically responds to external weather conditions, continuously adapting its cooling strategy to run only the most efficient cooling systems for the ambient condition of the moment. This means that the higher energy systems are only used when needed, ensuring consistent performance, **high efficiency and significant energy savings**.

## Features and Benefits

- ❑ Up to 130% Wet Bulb Efficiency (70% Dew Point Efficiency).
- ❑ Double wall insulated construction
- ❑ Integral Automated Control / ACSESS system BACnet optional
- ❑ Single Point Power Connection, Single Point Water Supply Connection, Single Point Drain Connection
- ❑ Automatic Water Quality Management System
- ❑ Supply Air Section:
  - Intake filters
  - EC Fans to maximize efficiency
  - Indirect Cooling Coil & Pump
  - Auxiliary Water or Refrigerant Coil
  - Direct Evaporative Cooling Pads c/w Stainless sump & circ pump
  - Mixing box option available
- ❑ Indirect Heat Rejection Section:
  - Evaporative Cooling Pads c/w Stainless sump.
  - Direct drive heat rejection fan.
- ❑ Gas Heating Option Available.

	Volume (CFM)	Volume (m <sup>3</sup> /s)	Volume (m <sup>3</sup> /h)	Cooling Capacity* Room (Ton)	Cooling Capacity* Nominal (Ton)
SH-CRS-2500	2500	1.18	4230	15	22
SH-CRS-5000	5000	2.35	8460	30	44
SH-CRS-7500	7500	3.53	12690	45	66
SH-CRS-10000	10000	4.70	16920	60	88
SH-CRS-12500	12500	5.88	21150	75	110
SH-CRS-15000	15000	7.05	25380	90	132
SH-CRS-20000	20000	9.40	33840	105	154
SH-CRS-25000	25000	11.75	42300	120	176
SH-CRS-30000	30000	14.10	50760	135	198
SH-CRS-35000	35000	16.45	59220	150	220
SH-CRS-40000	40000	18.80	67680	165	242
SH-CRS-45000	45000	21.15	76140	180	264
SH-CRS-50000	50000	23.50	84600	195	286

\*Cooling capacity measured considering outdoor conditions 100°F (37°C) DBT and 70°F (21°C) WBT - Room Temperature 78°F (25°C).

