

General Information

The PhD pool heating dehumidifier is an integrated package which supplies 100% of the heat required to heat a pool with savings of between 25-50% over natural gas. The PhD recovers and recycles the heat lost primarily by evaporation from the pool surface. The process of recovering the heat by condensing the moisture in the air reduces the need for fresh air ventilation for humidity control and provides even more significant savings in energy costs required to heat the fresh air in the winter. A unique heat pipe heat exchanger recovers a large part of the heat from the exhaust air to heat the incoming fresh air providing even more savings. The heat pipe heat exchanger increases the dehumidifying capacity of the PhD system by about 20-25% over a conventional system requiring the same electric input.



General Specifications

- Max. Water Heating Capacity:
W/80°F water 75,000 BTUH
- Air Reheating Capacity:
W/80°F water 51,000 BTUH
- Total Cooling Capacity: 63,000 BTUH
- Moisture Removal Capacity*: 33 lbs/hr
- Air Volume
@0.35 in. W.G. ESP 2300 CFM
- Maximum Fresh Air 1000 CFM
- Pool Water Flow:
Pressure Drop 14.0 GPM
7.2 PSI
- Water Inlet Max. Temp. 104°F
- Water Inlet Min. Temp. 60°F
- Water Inlet Max. Pressure 85 PSI
- Air Return Min. Temp. 65°F

*at EAT (Entering Air Temperature) 82°F and 60 % RH

Standard Features

- Painted Aluminum Cabinet
- Blygold Coated Air Coils for Corrosion Resistance
- Scroll Compressor
- Cupronickel Condenser Coil
- Coated Blower for Corrosion protection
- Stainless Steel Drain Pan
- Refrigerant: R-22

Options

- Economizer (Built-In)
- Remote Air Cooled Condenser Ready
- Potable Water Heat Recovery (Built-In)
- Water Cooled Condenser (Built-In)
- Supplemental External Static Pressure (ESP) - (over 0.35 in. W.G. ESP)

Optional Accessories

- Remote Air Cooled Condenser
- Thermostat and Humidistat

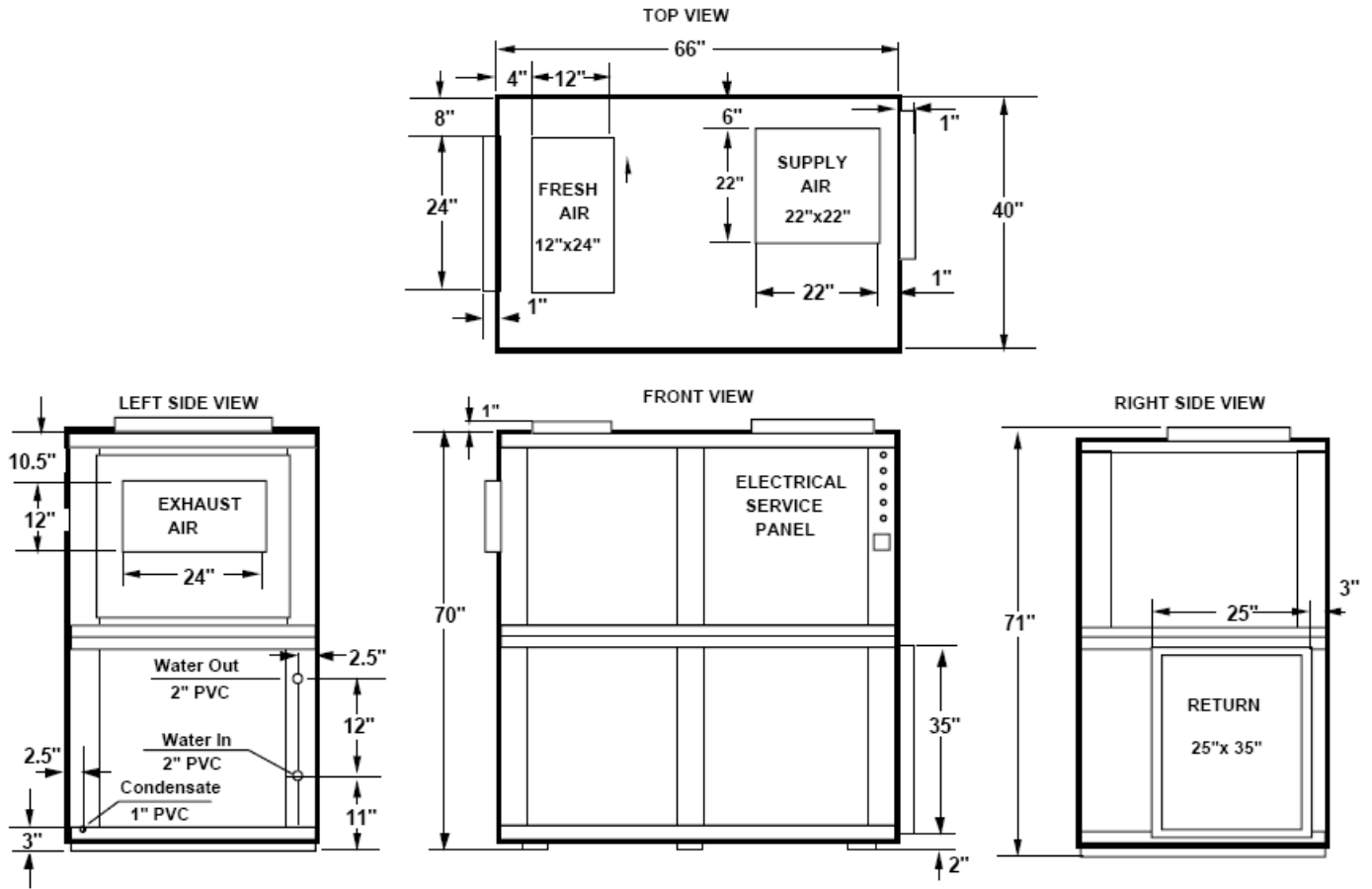
Electrical Characteristics

Model	Power Supply			Compressor		Blower #1		Blower #2		MCA	MFS
	Volts	Hz	Ph	RLA	LRA	HP	FLA	HP	FLA		
PhD-80 HA	208/230	60	1	32.1	169.0	1	6.9	1-1/2	9.3	57	80
PhD-80 HC	208/230	60	3	19.3	123.0	1	3.6	1-1/2	4.8	33	50
PhD-80 HD	460	60	3	10.0	62.0	1	1.8	1-1/2	2.4	17	25

MCA = Minimum Circuit Ampacity MFS = Maximum Fuse

(Dimensional Data on Reverse)

PhD-80 H Dimensional Data



Ship Weight: 950 Lbs.

As part of the Applied Energy Systems, Inc. continuous improvement program, specifications subject to change without notice.