Air Conditioning Contractors of America

Manual S (Residential Equipment Selection)

ACCA

Project Information

Name: 4430 9th St-v1, System 1

City: Washington

State: DC Altitude: 66 Altitude Adjustment: 1.00

Cooling Design Information

Outdoor Design Temp:	92	°F db	Summer		
Outdoor Design Temp:	20	°F db	Winter		
Indoor Design Temp:	75	°F db	50	%RH	63 °F wb

Manual J Load Calculations

Total Load	Sensible	Latent	SHR	Heat Loss
16834	14249	2585	0.846	

Airflow Calculations

Design TD for Airflow	18
Design Sensible CFM	720

OEM Information

Manufacturer: Bryant Furnace Model #: AFUE:

Coil or Fan-Coil Model #: PDS FK4C NF002 Condenser Model #: 38TRA 024321 SEER: 12.0 HSPF:

(A) Manufacturer's Cooling Performance Data

Outdoor Temperature = 95 (F db)

Entering Coil Temperature = 75 (F db)	Lower CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR
Rated CFM @ Rated RA Temperature		67	23,000	16,000	7,000	0.6957
Rated CFM @ Design RA Temperature	700	63	21,400	18,400	3,000	0.8598
Rated CFM @ Rated RA Temperature		62	21,000	19,000	2,000	0.9048

(B) Manufacturer's Cooling Performance Data

Outdoor Temperature = 95 (F db)

Entering Coil Temperature = 75 (F db)	Higher CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR
Rated CFM @ Rated RA Temperature		67	23,000	17,000	6,000	0.7391
Rated CFM @ Design RA Temperature	900	63	21,400	20,200	1,200	0.9439
Rated CFM @ Rated RA Temperature		62	21,000	21,000		1

Manufacturer's Cooling Performance Data (Interpolated)

Outdoor Temperature = 95 (F db)

	Design CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR
				18,577	2,823	0.8681
Excess Latent Capacity Calculation				+ 119	- 119	
Capacity @ Design CFM / RA (F wb)	**719.65**	**63**	**21,400**	**18,696**	**2,704**	**0.874**
Equipment Capacity as a % of Design			127.12%	131.21%	104.61%	

Manufacturer's Heat Pump Data

Capacity @ 47 °F db	Capacity @ 17 °F db	Balance Point	Supplemental Heat Required
		#DIV/0!	

Manufacturer's Furnace Data

Input Capacity	Output Capacity	AFUE	Desired Temp. Rise	Calculated Airflow