

Air Conditioning Contractors of America • Manual S 2nd Edition (2014) Residential Equipment Selection

Project Information			
Name			
Address			
City			
State		Zip Code	
System ID			

Design Information	
Outdoor Design Temperature - Summer	89
Indoor Design Temperature - Summer	72
Indoor Design %RH - Summer	50
Outdoor Design Temperature - Winter	6
Project Location Elevation	150

Proposed Equipment	System Type	Air-Air, Heat Pump, Variable Speed Compressor, Cold Winter or No Latent Load				
	Manufacturer		Furnace #		AFUE	
	Manufacturer		AHU/Coil #		SEER	
	Manufacturer		Condenser #		HSPF	
	Manufacturer		Package #		Fan Speed	Med

Manual J Load Calculations	Heat Loss	Total BTUH	Sensible BTUH	Latent BTUH	SHR
		14184	12878	11257	1621

To interpolate capacities, enter the listed capacities from the manufacturers cooling performance charts that are less than the design temperatures here

Out DB per OEM Chart	86		Design CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR
In DB per OEM Chart	72							
Capacity from MFG table			553	64	12,050	9,833	2,217	0.82
Interpolated Capacity				63	11,660	9,950	1,710	0.85
Capacity from MFG table				61	10,880	10,184	696	0.94

To interpolate capacities, enter the listed capacities from the manufacturers cooling performance charts that are greater than the design temperatures here

Out DB per OEM Chart	95		Design CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR
In DB per OEM Chart	72							
Capacity from MFG table			553	64	11,154	9,101	2,053	0.82
Interpolated Capacity				63	10,764	9,182	1,582	0.85
Capacity from MFG table				61	9,984	9,345	639	0.94

Out DB per OEM Chart	89		Design CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR	
In DB per OEM Chart	72								
Interpolated Equipment Capacity			553	63	11,361	9,694	1,667	0.85	
Excess Latent Capacity Calculation					23	23			
Mfg. Equipment Match-Up Adjustment Factor					1.00	1.00			
Altitude Adjustments					1.00	1.00			
Capacity @ Design Conditions					11,361	9,717	1,644	0.86	
Equipment Capacity as a % of Design					88.2%	86.3%	101.4%		

Oversizing Limits		216%		150%
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Heat Pump Data (if applicable)	Capacity @ 47 °F db	Capacity @ 17 °F db	Balance Point	Supplimental Heat Required	Altitude Adjustments	
					1.00	
					Cap. @ 47 °F db	Cap. @ 17 °F db
				4.16	0	0

Select Furnace or Boiler Option	Input Capacity	Output Capacity	Altitude Adjustment	Furnace Capacity	% of Load	Oversing Limits
Furnace Data (if applicable)			1.00	0	0%	200%

Electric Furnace	KW Proposed		KW Required		% of Load	Oversizing Limits
		0.00		4.16		0%