

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

Project Information			
Name			
Address			
City	Lincoln		
State	NE	Zip Code	68512
System ID	AHRI #206223010		

Design Information	
Outdoor Design Temperature - Summer	94
Indoor Design Temperature - Summer	75
Indoor Design %RH - Summer	50
Outdoor Design Temperature - Winter	
Project Location Elevation	1188

Proposed Equipment	System Type	Air-Air, Cooling Only, Variable Speed Compressor, Cold Winter or No Latent Load				
	Manufacturer		Furnace #		AFUE	
	Manufacturer	Mitsubishi	AHU/Coil #	SVZ-KP36NA		SEER 16.0
	Manufacturer	Mitsubishi	Condenser #	SUZ-KA36NAHZ		HSPF 9.00
	Manufacturer		Package #		Fan Speed	High

Manual J Load Calculations	Heat	Total	Sensible	Latent	SHR
		Loss	BTUH	BTUH	BTUH
	34331	17340	13633	3707	0.786

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	75							
Capacity from MFG table			910	64	35,748	25,596	10,152	0.72
Interpolated Capacity				63	35,016	26,414	8,602	0.75
Capacity from MFG table				61	33,552	28,049	5,503	0.84

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	75							
Capacity from MFG table			910	64	34,812	24,925	9,887	0.72
Interpolated Capacity				63	34,104	25,726	8,378	0.75
Capacity from MFG table				61	32,688	27,327	5,361	0.84

Out DB per OEM Chart	94		Design CFM	Return Air (F wb)	Total BTUH	Sensible BTUH	Latent BTUH	SHR	
In DB per OEM Chart	75								
Interpolated Equipment Capacity			910	63	34,205	25,802	8,403	0.75	
Excess Latent Capacity Calculation					2,348	2,348			
Mfg. Equipment Match-Up Adjustment Factor					1.00	1.00			
Altitude Adjustments					0.99	0.97			
Capacity @ Design Conditions					33,863	27,306	6,558	0.81	
Equipment Capacity as a % of Design					195.3%	200.3%	163.3%		

Oversizing Limits	187%	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	
	0.98				Cap. @ 47 °F db	Cap. @ 17 °F db
	40,000	37,000			-1.5	-0.08

Select Furnace or Boiler Option	Input Capacity	Output Capacity	Altitude Adjustment	Furnace Capacity	% of Load	Oversizing Limits
Furnace Data (if applicable)			0.96			200%

Electric Furnace	KW Proposed	KW Required	% of Load	Oversizing Limits
	8.00	10.06	80%	175%